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THE MORE IMPORTANT RECORDS FOR AUGUST

During the early part of August hatching of second-generation M. mexicanus Sauss. continued in southeastern Colorado and contiguous areas, and as far north as central Nebraska. Nymphs were present in varying numbers and instars and eggs in various stages of development, indicating a prolonged progressive hatch. Indications were that the infestations might become severe; however, egg desiccation caused a heavy reduction in viability in the southern part of the area. In some Texas Panhandle counties baiting was continued against M. differentialis (Thos.) and Aeolophus turnbulli Thos. Local dissemination of M. mexicanus and M. bivitatus Say were reported in the upper Red River Valley area in North Dakota and Minnesota, where baiting was continued late in the month, particularly in Minnesota, to protect crops remaining after grain harvest. Dispersal flights of M. mexicanus occurred in central Montana, including Phillips, Valley, Treasure, Yellowstone, Cascade, and Judith Basin Counties. Gravid females were numerous in this section and egg laying was under way during the early part of the period. Observations for D. longipennis Thos. continued to reveal a scarcity of this species although a previously unreported light infestation, consisting of one per 20 square yards, was found in Kiowa and Prowers Counties, Colo., and extending into Greeley County, Kans.

Mormon crickets had practically completed egg laying in Montana and Washington during the month. The egg survey in Washington showed a decrease in total acreage infested.

The European earwig was reported as doing some damage at Lewiston, Mont. In Idaho the insect is seriously numerous in the northern part of the State and has also been collected at Twin Falls. It is also seriously abundant in southern Washington.

The semitropical armyworm is seriously abundant in parts of Florida. Other species of noctuids are damaging the cannery pea crop in western Washington. More or less serious outbreaks of armyworm were reported from Maine, Pennsylvania, Ohio, and Minnesota.

Japanese beetle is more abundant than heretofore recorded in Connecticut. Similar conditions are reported from the northern part of the infested area of the Hudson River Valley of New York State, on the periphery of the infested area in Pennsylvania and Virginia.

The weevil Pseudocneorrhinus setosus Roelfs was recorded from New York State for the first time in August.

Say's stinkbug continued to be a serious pest in parts of Nebraska, Oklahoma, Texas, and Utah.

Chinch bug was seriously numerous in southwestern Oklahoma and the bordering section of Texas.

Corn leaf aphid damaging corn from New York to Nebraska, also reported in southwestern Oklahoma.

European corn borer generally reported over the eastern part of the infested area, with heavy infestations in western New York and in the Philadelphia area of Pennsylvania.

Complete defoliation of alfalfa by the alfalfa caterpillar is reported from California.

Vetch bruchid continued to spread in western Oregon.

Codling moth is more abundant than last year in Connecticut, in parts of Virginia, and from Ohio westward to Illinois.

Heavy infestations of white apple leafhopper are reported from New England southward to Virginia.

Severe infestations of European red mite are reported from New England, New York, and Pennsylvania.

For the first year since 1923, the Elberta peach crop was harvested before second-generation plum curculio eggs were laid.

The known area infested by pear psylla in Washington State was found to be materially larger than previously anticipated.

Blister beetles continued to be reported as abundant over the entire country east of the Rocky Mountains.

Very heavy infestations of trucking areas by the southern mole cricket were reported from Florida.

Squash bug quite generally reported over the greater part of Eastern States.

Severe damage by melon aphid is reported from southern Oklahoma and northern Texas.

Pepper weevil damaging pepper crop in California as high as 50 percent in some fields.

Boll weevil damage, although not abnormally light except in Texas, was building up rapidly during the month over the greater part of the Cotton Belt.

Cotton leaf worm was spreading during the early part of August and threatens late fields and top cotton over much of the Cotton Belt.

General moderate damage by bollworm is reported throughout the Cotton Belt.

Serious injury to cotton by red spider's is reported from the Carolinas, Mississippi, and Arkansas.

Fall webworm numerous in the New England States, South Carolina, Mississippi, Ohio, and Minnesota.

An outbreak of the saddled prominent also reported from New Hampshire, Vermont, and northern New York.

Complete defoliation of several thousand acres by forest tent caterpillar was reported from New York State, but in most of New England and in Minnesota the recent outbreak has subsided.

Elm leaf beetle generally prevalent throughout New England and the Middle Atlantic States.

Heavy outbreaks of the larch sawfly are reported from New England.

Locust leaf miner severely browning the leaves of black locust from Pennsylvania southward to Tennessee.

A severe outbreak of the pine tube moth is reported from West Yellowstone, Wyo.

THE MORE IMPORTANT FEATURES IN CANADA FOR JULY AND AUGUST

In the Prairie Provinces the heaviest grasshopper infestations developed in southwest Saskatchewan and southeast Alberta. In the former region grasshoppers were particularly severe over 1,200 square miles in the Claydon-Robsart-Govanlock area, where all crops were completely destroyed and pastures heavily damaged. Elsewhere in Saskatchewan, except locally, the infestation appeared to be lighter than usual. The most important species in Saskatchewan this season is the lesser migratory grasshopper. In southeastern Alberta crops were seriously damaged and most of the stubble crops were destroyed. Migrations began in July from southwest Saskatchewan in a north and northeasterly direction, and from southeast Alberta toward the north and northwest. In Saskatchewan the concentration of the flights had evidently been greatly reduced by the enormous numbers of grasshopper poisoned and, although grain heads, particularly oats, were being cut to a considerable extent, this type of damage was, on the whole, much lighter than in recent years. In Alberta by mid-August the migrating grasshoppers had spread over much of the southern part of the Province and were beginning to damage oats and barley. In Manitoba a build-up in the grasshopper population over 1939 was indicated and considerable poisoned bait was distributed. Moderate-to-severe injury to grain crops occurred locally in July and in some districts oats were cut early to prevent further damage. Surveys of adult grasshoppers in the first half of August showed a general increase in the infestation, some flights and

local head damage had occurred, and egg laying had begun. In the interior of British Columbia grasshoppers were scarce, notwithstanding prolonged hot, dry weather.

Heavy infestations of the variegated cutworm were reported in July on Prince Edward Island in the East, and on Vancouver Island in the West.

The wheat stem sawfly infestation was severe in Alberta from Stettler southward. The insects were cutting wheat in many southern districts in the early part of August, losses as high as 15 percent in certain localities being reported. Considerable damage also occurred in Saskatchewan.

Say's stinkbug increased under ideal weather conditions in southern Alberta in July and considerable numbers moved into grainfields in localized areas. Loss of about 5 percent in some winter wheatfields was reported at the end of July, and as high as 30 percent marginal loss in spring wheat was threatened in the Retlaw district. The crop damage occurred from Taber to Grassy Lake, and from Turin and Lomond.

A widespread outbreak of the beet webworm developed throughout the Prairie Provinces. Large flights of the moths were reported at various points early in July, and subsequently great numbers of the larvae appeared on weeds, various garden plants, beets, alfalfa, and sweetclover.

Blister beetles were reported to be prevalent in localities from eastern Ontario to Prince Edward Island. They were also unusually abundant throughout the three Prairie Provinces, causing damage to garden and field crops and ornamentals. Several species of the beetles were involved.

Sweet corn was heavily infested by the European corn borer in southern and eastern Ontario and southern Quebec. In the Ottawa district a large part of the crop was unmarketable.

Adults of the imported cabbage worm were exceptionally numerous in eastern Ontario during August, and a heavy infestation of the larvae developed on cruciferous plants.

An infestation of the pea aphid affecting 2,000 acres of canning and seed peas in the Taber-Barnwell district of southern Alberta was the most severe on record for that area. The species was also abundant and injurious in localities in eastern Ontario and southern Quebec.

In the Annapolis Valley, Nova Scotia, where the codling moth has not been an important pest in past years, an increase of this species has occurred and damage in some orchards is severe. In the Niagara district, Ontario, cold wet weather in spring and early summer retarded development so that, in the first part of July, the insects were about 2 weeks behind the average for the last 5 years.

An increase in abundance of the gray-banded leaf roller and the eye-spotted budmoth was noted in apple orchards in the Annapolis Valley, Nova Scotia. A severe outbreak of the latter species occurred in Ontario, particularly in the eastern and southwestern portions of the Province. An increase was reported in Prince Edward Island.

Infestation of the Pacific mite is on the increase in the Oliver district, British Columbia.

Peach-twig infestation by the oriental fruit moth is much higher than last year in the Niagara district, Ontario.

The fall webworm is unusually abundant and conspicuous in Ontario; and along the Ottawa and St. Lawrence Valleys.

The European spruce sawfly has increased generally in Quebec and Ontario, and new distribution records have been obtained in Gray and Bruce Counties, in the latter Province.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- General. B. M. Gaddis (August 31): A build-up in populations and dispersal of the lesser migratory and the two-striped grasshoppers is reported from the southern half of South Dakota. Heavy populations which may represent migrations were reported from northwestern Minnesota.
- Missouri. L. Haseman (August 20): Common species of meadow grasshoppers throughout central Missouri have been extremely abundant and in places have considerably damaged vegetation, even eating out the forming tassels of sweet corn. Most of them have reached the adult stage. During August the two-striped grasshopper (Melanoplus bivittatus Say), the Carolina grasshopper (Dissosteira carolina L.), the differential grasshopper (M. differentialis Thos.), and M. mexicanus Sauss. appeared in central Missouri in the order listed above, so far as abundance is concerned. All have been observed to be mating and with fully developed eggs.
- Kansas. H. R. Bryson (August 27): Injury observed recently on corn and sorghums in Jewell, Cloud, and Clay Counties. Worst injury occurred in Jewell County. Population in southeastern counties is of little consequence. Reported as plentiful in Comanche County.
- Oklahoma. F. A. Fenton (August 22): Few nymphs of M. mexicanus reported as being present in Cimarron County, indicating a very small partial second generation in that county.
- Montana. H. B. Mills (August 7): Boopedon nubilum Say more abundant in Hill and Big Horn Counties than for many years. Cutting heads of 200 acres of spring wheat 5 miles south of Hardin, Big Horn County. About 8 per square yard in some places. Damage moderate. Seen in considerable numbers 5 miles south of Cascade, Cascade County.
- Utah. G. F. Knowlton (August 9): Seriously abundant and 95 percent adult in Juab and Millard Counties. Seriously damaging crops at Mills, Levan, and West Nephi, and in northern Davis County.

MORMON CRICKET (Anabrus simplex Hald.

- Montana. H. B. Mills (August): Comparatively large migration from Idaho over the Monida Pass into Beaverhead County on about August 5.
- Washington. L. G. Smith (August 14): Ninety-five percent of adults reported as dead in Franklin County for week ended August 3. Remaining crickets had from 5 to 20 percent of their eggs yet to be deposited. Oviposition practically complete in the Goodnoe Hills area of Klickitat County. Eggs concentrated largely along the edges of the fields, on the south slopes. For the week ended August 10 it was reported that the fall survey of adults showed a decrease in total acreage infested, but a larger number of heavy and moderately infested areas. Eggs found generally scattered throughout the infestations.

EUROPEAN EARWIG (Forficula auricularia L.)

Montana. H. B. Mills (August 6): Occurring at State fish hatchery at Lewistown and causing light damage. First noticed there 6 years ago.

Idaho. J. C. Evenden (August 20): Firmly established throughout the northern part of State and is a serious pest.

J. R. Douglass (August 3): Specimens collected in a tourist park camp at Twin Falls.

Washington. L. G. Smith (July 31): Many observed in eastern counties. Great numbers invading gardens and homes in Ellensburg. Control campaign being considered at Pomeroy.

E. J. Newcomer (August 19): Very common in gardens at Yakima.

FIELD CRICKET (Gryllus assimilis F.)

Michigan. R. Hutson (August 23): Reported as causing trouble in houses in several places in southern Michigan.

CUTWORMS (Noctuidae)

Florida. C. S. Rude, et al. (August 3): Semitropical armyworm (Prodenia eridania Cram.) continues doing considerable damage in Lake and southern Marion Counties. No pupae could be found in one cottonfield, where small pigs had been eating them.

C. B. Wisecup (August 28): The cold winter appears to have limited effectiveness of parasites of P. eridania in the Sanford area, where they are attacking cowpeas, sweetpotatoes, and careless weed. Many waste areas heavily infested, so that later broods appear to be a definite menace to early fall vegetable crops.

Washington. L. G. Smith (July 19): Cutworms reported as causing severe damage to leaves and pods of canning peas in several fields between Satsop and Elma, Grays Harbor County. (July 27): Reported as very numerous in Snohomish County and a potential threat to crops. Pea vines examined at Stanwood on July 25. One field which had had pea crop taken from it contained an enormous number of cutworms of all sizes. From 150 to 175 larvae were found in an area 1 foot square.

California. A. E. Michelbacher (August 26): The yellow-striped armyworm (P. praeifica Grote) was abundant and damaging alfalfa in a few fields in the San Joaquin Valley.

ARMYWORM (Cirphis unipuncta Haw.)

Maine. J. H. Hawkins (August 17): Oats injured in two fields at Machias. Starlings observed feeding on them.

Pennsylvania. E. A. Richmond (August 28): Reported as causing damage in Huntingdon, Centre, Indiana, Somerset, and Clinton Counties.

Ohio. T. H. Parks (August 24): Outbreak developed in western Hardin County, north-central Ohio, late in July. Corn severely injured before control measures were applied. Outbreak limited to three or four farms and caused by second-generation larvae.

Minnesota. M. W. Wing (August 15): Present on barley, oats, and asters in Rice, Le Sueur, Hennepin, and Otter Tail Counties.

FALL ARMYWORM (Laphygma frugiperda A. & S.)

New York. N. Y. State Coll. Agr. News Letter (August 26): Observed on Long Island and in the Hudson Valley, eastern New York. Observed in Ontario County, western New York.

Virginia. H. G. Walker and L. D. Anderson (August 28): Rather severe damage caused in some fields of young cabbage and kale at Norfolk; not nearly so abundant on late corn as at this time last year.

Georgia. T. L. Bissell (August 26): Two specimens found on cowpea at Experiment, the first individuals seen since May when they were found on corn.

Mississippi. C. Lyle and assistants (August 26): Specimens received from Harrison County, where they were feeding on grass, and from Lincoln County, where they were feeding on corn and sorghum. Feeding on young corn in Pearl River County and on corn and on a lawn in Oktibbeha County.

BEEF WEBWORM (Loxostege sticticalis L.)

Minnesota. M. W. Wing (August 15): Heavily infesting most of the State.

Nebraska. H. D. Tate (July 23): Taken from sorghum in Hamilton County.

Utah. G. F. Knowlton (August 1): Abundant in light-trap catches at Syracuse and moderately abundant at Spanish Fork.

ALFALFA WEBWORM (Loxostege commixtalis Walk.)

Nebraska. H. D. Tate (August 16): Specimens received from Dawson County on July 17. Adults reported as numerous in alfalfa and oatfields. Heavy flight reported in Scotts Bluff County on July 27. (Det. by O. S. Bare.)

JAPANESE BEETLE (Popillia japonica Newm.)

Connecticut. A. W. Morrill, Jr. (August 22): Observed in field of sun-grown tobacco in East Hartford. Apparently they had been driven to tobacco by destruction of a plot of grassland adjoining. Part of this grassland remained and showed a heavy admixture of jointweed which was heavily infested. Attacked mostly the noncommercial upper leaves of tobacco but had done occasional heavy damage to middle leaves.

J. P. Johnson (August 23): Adults causing more damage in Greenwich, Stamford, Fairfield, Bridgeport, Stratford, New Haven, Hamden, Hartford, and other towns, than ever before. Linden, elm, mountain ash, and gray birch are among the shade trees being defoliated. Grapes, peaches, early apples, nectarines, and plums have been seriously attacked in a commercial orchard in Greenwich.

New York. M. D. Leonard (August 26): Less numerous than last year on World's Fair grounds at Flushing. Very few beetles in traps during last few days.

N. Y. State Coll. Agr. News Letter (August 12): In Westchester County, eastern New York, the 1939 spring survey showed an average population of 17.7 grubs per square foot, obtained from 91 diggings well distributed over the area south of the Croton Reservoir. Highest number from 1 square foot of sod was 83 at North Castle. The 1940 survey entailed 159 diggings over the entire county. The average population was 19.1 grubs per square foot, including the northern part of the county, where the population is lighter. The highest number found was 102 at Eastview. The southern part of the county has suffered most, feeding being particularly severe on linden, willow, elm, sassafras, rose, Virginia creeper, apple, cherry, and grape. Feeding injury particularly noticeable in the southeastern portion of Orange County. Beetles very abundant all over the "flats" in Ulster County. Widespread infestation found south of Highland. It is evident that infestation is now present in heart of Hudson Valley fruit-growing area. Very prevalent on practically every farm in Rockland County, being especially noticeable attacking sweet corn tassels and tomatoes. (August 19): For the first time a specimen has been submitted from Auburn, Cayuga County, where traps have been placed about the city for from 5 to 7 years. Also found feeding on shrubbery.

New Jersey. M. D. Leonard (August 21): Reported as not so numerous in northern part of Bergen County as last year. Observed around Ridgewood but doing less feeding than last season.

Delaware. L. A. Stearns (August 9): Damage on both fruit and shade trees, especially the more favored ones, as heavy as in 1939 in New Castle County. Emergence, though late, coincided with the period of extremely hot weather late in July, and attack was short but severe. Injury fully as extensive in the vicinity of Dover, central part of Kent County, as in New Castle County. Infestation very light in several localities in northern part of Sussex County.

Pennsylvania. T. L. Guyton (August 22): Less abundant in the Philadelphia and Harrisburg areas than last year. Numerous in parts of Lancaster, Chester, and Berks Counties.

E. A. Richmond (August 28): This beetle has increased in abundance this year in Union, Northumberland, and Monroe Counties.

Virginia. H. G. Walker and L. D. Anderson (August 28): Much more abundant in eastern Virginia than ever before. Apple trees and grapevines defoliated, and field corn severely damaged near New Church. Near Norfolk 1,580 beetles were caught in 24 traps.

GREEN JUNE BEETLE (Cotinis nitida L.)

New York. E. P. Felt (August 26): Numerous on Long Island.

Virginia. A. M. Woodside (August 14): Abundant in bait traps near Fishersville.

Georgia. T. L. Bissell (August 19): Common in cowpea fields at Experiment.

Oklahoma. F. A. Fenton (August 22): Reported as injuring fruits at Muskogee.

FULLER'S ROSE BEETLE (Pantomorus godmani Crotch)

California. L. M. Smith (August 1): Abundant in many raspberry patches in the Santa Clara Valley. Eggs are being laid. More abundant than at any time since 1932.

A WEEVIL (Pseudocneorrhinus setosus Roelofs)

New York. C. A. Weigel (August 9): Collected on forsythia, rose, fern, and rhododendron on Long Island on August 1. (Det. by L. L. Buchanan.)

A LONG-HORNED WEEVIL (Calomycterus setarius Roelofs)

New York. W. H. Manson (August 8): Overrunning property at Millertown, Dutchess County, in the Hudson Valley. (Det. by L. L. Buchanan.)

ASIATIC GARDEN BEETLE (Autoserica castanea Arrow)

New York. N. Y. State Coll. Agr. News Letter (August 12): Very heavy flight in Nassau County, eastern New York, for this time of year.

SAY'S STINKBUG (Chlorochroa sayi Stal)

Nebraska. H. D. Tate (July 28): On potato plants in Scotts Bluff County.

Oklahoma. F. A. Fenton (August 22): In Texas and Cimarron Counties, causing severe losses to late-planted wheat.

Texas. R. K. Fletcher (July 29): Present on cotton in Pecos County.

A. J. Chapman (August 10): On cotton in Presidio County.

Utah. C. J. Sorenson (July 19): Severe injury to spring wheat at Roosevelt.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

BLACK GRAIN STEM SAWFLY (Trachelus tabidus F.)

General. C. C. Hill (August): Examination of wheatfields in Pennsylvania during June and July showed 4-percent infestation of culms in Franklin County. No infestation in other parts of the State. Wheatfields in Kent and Newcastle Counties, Del., showed less than 1-percent infestation. On the Eastern Shore of Maryland on July 31 and August 1 infestations were 4 percent in Cecil County, 5 percent in Queen Anne County, and none in Dorchester County. Infestation in western Maryland was 10 percent in Baltimore County, 4 percent in Carroll County, 7 percent in Montgomery County, and none in Frederick and Washington Counties. Infestations in Virginia, by counties, were as follows: Augusta, 1 percent; Campbell, 2 percent; Caroline, 2 percent; Essex, 3 percent; Fauquier, a trace; Rockbridge, a trace; and Shenandoah, 1 percent.

EUROPEAN WHEAT STEM SAWFLY (Cephus pygmaeus L.)

Pennsylvania. C. C. Hill (August): Survey of wheatfields showed infestations of 2 percent in Adams, Berks, Cumberland, Huntingdon, Lycoming, Mifflin, and Perry Counties; 4 percent in Bucks County; 17 percent in Centre County; 1 percent in Lancaster County; and none in Lebanon, Lehigh, Northumberland, Union, and York Counties. Infestation had not yet reached counties farther west in the State.

WHEAT STRAW WORM (Harmolita grandis Riley)

Utah. G. F. Knowlton and F. C. Harmston (August 3): Injury is serious in some wheatfields at Ferrin.

WHEAT MIDGE (Thecodiplosis mosellana Gehin)

Michigan. R. Hutson (August 23): Specimen sent in from Charlotte, in southern Michigan. Rare in Michigan and has shown up in a few fields near Lansing for the first time in several years.

CORN

CHINCH BUG (Blissus leucopterus Say)

Pennsylvania. E. A. Richmond (August 28): Damage caused in several cornfields in Butler County.

Missouri. L. Haseman (August 20): First-generation distribution flight took place in central Missouri during week ended August 10. Owing to weather conditions, eggs are scarce in cornfields. In one corn patch the first generation was made up of over 10 percent of the short-winged form.

Kansas. H. R. Bryson (August 27): The exceptionally hot, dry weather which prevailed in the eastern third of the State during July reduced the population of first-generation nymphs to such an extent that a very small second brood resulted. Very little injury to late sorghums noted.

Nebraska. H. D. Tate (July 19): Control request received from Otee County.

Oklahoma. F. A. Fenton (August 22): Seriously infested the June corn crop in some eastern sections.

R. G. Dahms (August 24): Infestation heavy in southwestern Oklahoma but second-generation bugs were about 10 days later than normal, severe injury being confined to susceptible varieties and fields of late-planted sorghums. Egg laying of second-generation adults began about August 5 and third-generation nymphs are now abundant on sorghums.

Texas. R. G. Dahms (August 24): Worst outbreak in many years in sorghum-producing area in vicinity of Chillicothe, Hardeman County, bordering southwestern Oklahoma. All susceptible sorghum varieties have been severely injured.

CORN LEAF APHID (Aphis maidis Fitch)

New York. N. Y. State Coll. Agr. News Letter (August 26): Covered one large field in Genesee County, Western New York, clusters being present in rather large numbers on the tassel stalk of nearly every plant and injury was very evident. Well established over 18 acres.

Ohio. T. H. Parks (August 21): Damaged corn in many northern and western counties. Responsible for many barren stalks. Hybrid strains seem very susceptible.

Illinois. C. C. Compton (August 24): More abundant than for several years. Infestation general over State. Held in check by parasites and predators.

Michigan. R. Hutson (August 23): Reported from several counties in southern Michigan.

Minnesota. M. W. Wing (August 15): Present on corn at Albert Lea, Freeborn County, and in Murray County.

Nebraska. H. D. Tate (August 16): Observed on corn in Madison County on July 30. Heavy infestations reported from Dundy and Holt Counties on July 31 and August 7, respectively, and specimens taken from corn were received from Phelps County on August 13.

Oklahoma. R. G. Dahms (August 24): Very common on sorghums in southwestern Oklahoma.

A PENTATOMID (Euschistus variolarius Beauv.)

Missouri. T. E. Birkett and P. C. Stone (August 2): Large infestation observed on July 5 in 2-acre field in Henley, Cole County. Average of 19 adult and late-instar bugs per hill killed in 11 rows of corn on north side of field.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Maine. J. H. Hawkins (August 27): Present in many fields and gardens in Maine. Especially abundant in early planted sweet corn.

Massachusetts. A. I. Bourne (August 23): First eggs of second brood observed early in week beginning August 4.

Connecticut. N. Turner (August 22): First generation on sweet corn much less abundant than last year, owing to unfavorable weather in June. Second-generation larvae developing rapidly, and infestation is heavy.

New York. N. Y. State Coll. Agr. News Letter (August 19): Eggs are being laid steadily in a number of fields on Long Island and in the Albany area. Emergence of second-generation moths is nearly complete, and small larvae of the new generation are beginning to appear. Second-generation eggs were laid later than usual generally. (August 19): In western New York, in Monroe County, the corn borer is more abundant than for some years, causing serious loss in some fields. In Niagara County they seem to be causing more damage than in any recent time. Causing some damage to sweet corn in Erie County. (August 26): Quite an infestation in sweet corn at two or three places in Genesee County.

Pennsylvania. J. P. Slesman (August 2): Very heavy in the Philadelphia area, some fields showing 100-percent infestation, especially in sweet corn.

CORN ROOTWORM (Diabrotica longicornis Say)

Tennessee. G. M. Bentley (August 23): Reported as injuring corn at Kingston Springs, Cheatham County.

Arkansas. D. Isely (August 26): Caused severe damage to corn in Independence County, destroying approximately 50 percent of the stand in a 100-acre field. Unusual species in this State.

Nebraska. H. D. Tate (August 16): Adults sent in from Burt County on July 30.

COMMON RED SPIDER (Tetranychus telarius L.)

Utah. C. J. Sorenson (August 19): Serious damage to corn at North Logan started on about July 20. Within 2 weeks much of the corn in three fields was so badly damaged that further development was prevented. Still active on corn.

ALFALFA AND CLOVER

ALFALFA WEEVIL (Hypera postica Gyll.)

Utah. C. J. Sorenson (August 6): Reported as doing considerable damage to alfalfa (first and second crops) in Millard County. Second crop seriously checked in initial stages in many fields. Less damage done generally than in 1939. (August 19): A few nearly mature larvae observed in an alfalfa field at Logan today. Occurrence this late is uncommon in this area.

California. A. E. Michelbacher (August 26): Found to be rather scarce in the infested part of the San Joaquin Valley on August 23. The number of larvae collected per 100 sweeps in the different fields ranged from 0 to 22, and the number of adults from 0 to 5.

ALFALFA CATERPILLAR (Colias eurytheme Bdv.)

California. A. E. Michelbacher (August 26): In some fields near Westley larvae have caused considerable damage. In one field 6,300 larvae were collected per 100 sweeps. In another field where no counts were made the population must have exceeded the above, and alfalfa over a large part of the field was completely defoliated. A wilt disease was making its appearance but had not reached epidemic proportions in this region. In some other fields it appeared that the disease had saved the alfalfa. The parasite, Apanteles flaviconchae Riley, also appeared to be of some value in reducing damage, 80 to 90 percent of the small larvae being parasitized in some fields.

A MEMBRACID (Campylenchia latipes Say)

Utah. G. F. Knowlton (July 31): Abundant on and damaging alfalfa and sweet-clover at Eden. Often 10 to 15 adults per stem.

CLOVER SEED CHALCID (Bruchophagus gibbus Boh.)

Utah. C. J. Sorenson (August 19): Infestation in Logan, Cache County, approximating 10 percent in seed of second-crop alfalfa. Adults now emerging from the seed.

Utah. C. J. Sorenson (August 19): Heavy infestations of L. elisus hesperus Knight and L. elisus Van D. in rank, succulent alfalfa fields in the Fillmore, Delta, and Logan districts, and on a weed in the Delta area.

THRIPS (Thysanoptera)

Utah. G. F. Knowlton (July 18): Very abundant on alfalfa left for seed at Callao, Juab County.

COWPEA

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

Georgia. T. L. Bissell (August 19): Larvae very abundant in dry peas picked last week at Experiment.

VETCH

VETCH BRUCHID (Bruchus brachialis Fahraeus)

Oregon. L. P. Rockwood and M. M. Reeser (August 5): Columbia and Polk Counties found to be infested in 1940 survey. Found 1/2 mile inside the eastern edge of Columbia, and as far south as 4 miles north of Independence in Polk County, but only in a narrow strip between Eola Hills and Willamette River. Thin population in the northwestern corner of Linn County, north and east of Albany. In Yamhill County the western limit is about 5 miles west of McMinnville, and in Washington County the western limit is in the foothills of the Coast Range, about 25 miles west of Portland.

Washington. L. P. Rockwood and M. M. Reeser (August 5): No extensions of the northern margin of the infested area were found in 1940. This area, consisting of parts of Skamania, Clarke, and Klickitat Counties, is directly north of and contiguous to the infested area in Oregon.

VELVETBEAN

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

Mississippi. T. F. McGehee (August 26): Feeding on velvetbeans in Harrison County.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis F.)

Louisiana. A. L. Dugas (August 28): Infestation throughout the sugar belt is lower this year than it has been in many years. In spite of the scarcity of borer eggs, parasitization by Trichogramma is rather high.

F R U I T I N S E C T S

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Mississippi. C. Lyle and assistants (August 26): Numerous in weakened trees in Meridian area and on peach trees in Hinds and Bolivar Counties.

Utah. G. F. Knowlton (August 4): Attacking peaches, apricot, and hawthorn, causing serious injury to some trees.

California. L. M. Smith (August 1): Adults found boring into stem end of peach fruits at Modesto, Stanislaus County. Infestation severe on prunes in Sonoma County, killing from one-third to one-half tree in many cases.

A LEAFHOPPER (Phelpsius ishidae Mats.)

New York. E. P. Felt (August 26): Reported as injuring hazel and apple foliage in the New York Botanical Garden, producing a condition suggestive of leaf scorch. (Det. by P. W. Oman.)

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia. O. I. Snapp (August 13): Infestation on peach trees at Fort Valley, central Georgia, still lighter than that of average year.

Mississippi. C. Lyle and assistants (August 26): Reported as abundant enough to kill some trees in a peach orchard in Claiborne County. Heavy infestations on untreated trees reported from Meridian area.

Oklahoma. F. A. Fenton (August 22): Reported on peach at Stuart.

A MEALYBUG (Phenacoccus aceris Sign.)

British Columbia. E. J. Newcomer (August 2): Rather abundant on apple, pear, plum, and cherry at Nelson. Has been present in the Kootenay Lake area for 20 years.

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

Connecticut. P. Garman (August 22): Considerably more abundant than in 1939. Serious infestation in at least one large apple orchard in Middlesex County.

New York. N. Y. State Coll. Agr. News Letter (August 5): In eastern New York, in the Hudson Valley, there has finally been a definite gap between late first-brood and early second-brood larval entries. Very few entered the fruit from July 29 to August 3. Second-brood moths began to emerge in orchards about July 24, but emergence has been light and apparently has not reached its peak. In western New York, in Erie County, entrances and stings are showing in considerable numbers in poorly treated orchards. In Niagara County eggs have been laid during last 2 weeks. Fresh entrances found throughout last week in heavily infested orchards. Eggs much less numerous, indicating that the first brood was about through and the second brood just getting under way. Considerable sideworm injury noticed on pears. In Monroe County the very active work of last 10 days has about ceased, except on the lake shore where new entrances continued to show up throughout the week. Injury serious in some orchards.

Delaware. L. A. Stearns (August): Situation throughout State very good for this time of year. Heavy moth flights about July 25 to 31 and from August 8 to 10.

Virginia. A. M. Woodside (August 22): Moth flight heavy and fruit infestation increasing in Augusta County.

Ohio. T. H. Parks (August 26): Moths emerging and in flight throughout July and August. Control measures necessary because of severe damage to apple orchard.

Indiana. L. F. Steiner (August 15): Very heavy hatch occurred during the last 3 weeks in the Vincennes area and no let-up is in sight. Second-brood larvae are beginning to leave apples in considerable numbers. (August 22): Catches in traps in Vincennes area fell off temporarily, owing to cooler weather, but are again increasing, the catch on August 21 being the largest since August 9. Population in 10 trees increased from 50 last week to 61 today. This is within 3 moths of the average during the period of maximum abundance, extending from July 18 to August 1. Males exceeded females by 50 percent, indicating that second-brood adult emergence is getting under way, as males predominate at the beginning of each brood.

Illinois. C. C. Compton (August 24): Following peak of emergence for week ended August 17, trap catches fell off because of cold weather. Heavy emergence during week ended August 24, indicating that emergence is being prolonged over a longer period than normally.

Kentucky. M. L. Didlake (August 26): Second-brood damage to apples reported as unusually severe in western Kentucky fruit districts.

Michigan. R. Hutson (August 23): Egg laying heavy from August 7 to 15.

Missouri. L. Haseman (August 20): Peak of second-brood moths occurred late in July and heavy rains early in August materially interfered with August larvae throughout most of State.

Missouri and Kansas. H. Baker (August 27): In northwestern Missouri and northeastern Kansas, first brood moths began emerging July 6 to 9. Peak emergence occurred July 27 to August 6. Bait catches were heavy from July 25 to August 8 and have continued at a moderate level when weather conditions favored their activity. Activity during August was curtailed considerably because of cloudy and rainy weather.

Washington. C. C. Alexander and M. A. Yothers (August 20): Large numbers caught in baits at Yakima the last month. There has been no definite peak although a high point was reached on August 4 and another from August 16 to 18. Oviposition heavy throughout month. Beginning about July 10, some larvae failed to pupate, and for week ended July 19, 4 percent showed indications of delaying pupation until spring. Increase in number of larvae leaving fruit during last week.

FRUIT TREE LEAF ROLLER (Cacoecia argyrospila Walk.)

Missouri. L. Haseman (August 20): Unusual abundance of egg packets reported throughout northeastern quarter of State.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

New York. N. Y. State Coll. Agr. News Letter (August 5): Emergence is about complete in Rockland County. Flies fairly numerous in some orchards.

WHITE APPLE LEAFHOPPER (Typhlocyba pomaria McAtee)

Massachusetts. A. I. Bourne (August 23): Second brood normally abundant in the Valley.

Connecticut. P. Garman (August 22): Infestations threaten many apple orchards throughout New Haven County.

Delaware. L. A. Stearns (August 9): Heavy infestation on apples at Bridgeville today.

Virginia. A. M. Woodside (August 22): Fairly heavy infestation in a few apple orchards in Augusta County. About half have reached the adult stage. Infestations greatly reduced in some orchards by parasitization of the first brood by a dryinid.

LEAFHOPPERS (Erythroneura spp.)

Missouri and Kansas. H. Baker (August 27): Unusually abundant on apple throughout northwestern Missouri and northeastern Kansas.

COMSTOCK'S MEALYBUG (Pseudococcus comstocki Kuw.)

Virginia. G. J. Haeussler (August 14): Adult female specimens and probably some third-instar nymphs collected today on apple at Cotesville, Albemarle County.

West Virginia. G. J. Haeussler (August 23): Specimens collected on apple at Knowlesville. (Det. by H. Morrison.)

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Massachusetts. A. I. Bourne (August 23): Became very numerous early in August, owing to weather, but has largely subsided.

Connecticut. P. Garman (August 22): Infestation on apples severe in many places. Control measures not very successful, because of weather.

New York. N. Y. State Coll. Agr. News Letter (August 5): In eastern New York, in Rockland County, the red mite has been more generally serious than for several years. In western New York, in Niagara County, they have increased to alarming proportions in some apple orchards.

Pennsylvania. E. A. Richmond (August 28): Some damage caused in apple orchards in the northeastern section of the State. Found to be abundant in several orchards in Lawrence County, in the western part of the State.

Michigan. R. Hutson (August 23): Severe in scattered orchards throughout the fruit area from Benton Harbor to Manistee.

PEACH

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Connecticut. P. Garman (August): Peaches are being attacked about the same as last year.

New York. N. Y. State Coll. Agr. News Letter (August 19): Second brood in Niagara County, western New York, is damaging fruit much more than usual.

Georgia. O. I. Snapp (August 1): Of 10,589 ripe Elberta peaches carefully examined 85, or 0.8 percent, were found to be infested with larvae, as compared with 0.24 percent in 1939. These peaches were harvested from a commercial orchard near Fort Valley, in which no control measures had been enforced. Absence of host for the maturity of hibernating broods of larvae is responsible for light infestation in the commercial orchards at Fort Valley.

Mississippi. C. Lyle and assistants. (August 26): Specimens of injured peach twigs received from Lowndes County. Moderately light infestations reported generally from the Meridian area and in Madison County. Continued attacks on peach trees reported from the northeastern counties. Larva taken from a sand pear in Greene County.

Texas. F. L. Thomas (August 6): Second generation observed causing considerable damage in peach orchards in Nacogdoches, Montague, Ellis, and Milam Counties.

R. K. Fletcher (August 13): Causing severe damage to peach and plum in Harrison, Fisher, Erath, and Milam Counties.

LESSER PEACH BORER (Conopia pictipes G. & R.)

Missouri. L. Haseman (August 20): Reported as unusually heavy in some peach orchards in southeastern Missouri.

PLUM GURCULIO (Conotrachelus nenuphar Hbst.)

Delaware. L. A. Stearns (August 23): Infestation generally light on peach at Bridgeville. Peak of emergence of adults of summer brood occurred on July 16.

Michigan. R. Hutson (August 23): Damage common on peaches in southern Michigan.

Georgia. O. I. Snapp (August 13): First year since 1923 that the Elberta peach crop in Georgia was not subjected to at least a partial second-brood attack. Entire crop of Georgia peaches was harvested before the deposition of second-generation eggs. Mature second-generation eggs were not found in the bodies of first-generation females until July 26. First mature eggs of second-generation were found in the body of a female that emerged from the soil on June 20, the period between adult emergence and maturity of first eggs of second generation being 36 days. A number of females began to deposit second-generation eggs during the first week in August. Adult population in central Georgia peach orchards is lighter now than that of an average year.

Mississippi. M. L. Grimes (August 26): Caused some injury to late peaches in the Meridian area.

Texas. W. McGregor (August 13): Severe damage to peach and plum throughout the eastern and northern fruit-growing districts.

PEACH AND PLUM SLUG (Eriocampoides amygdalina Rohw.)

Alabama. F. E. Guyton (July 24): Causing heavy damage to peach leaves at Auburn.

PEAR

PEAR PSYLLA (Psylla pyricola Foerst.)

Washington. L. G. Smith (August 9): Infestations found at four points between Ritzville and Lind, in Adams County, and at two points near Connell, in Franklin County. This represents an extension of the known infestation considerably.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

Maine. H. B. Peirson (August 19): Very abundant on pear foliage at Manchester on June 6.

PEAR SLUG (Caliroa cerasi L.)

Washington. E. J. Newcomer and F. W. Carlson (July 30): Very numerous on pear and cherry at White Bluffs and Hanford, Benton County. (August 14): Very numerous on pear and cherry in Kittitas County.

PLUM

A BORER (Carposina comonana Kearf.)

California. D. F. Barnes (May): Five or six adults were taken per day for about 2 weeks in the middle of May in each of three malt-sirup bait traps operated in a plum orchard near Exeter, Tulare County. A second, smaller flight was indicated between July 9 and 30. (Det. by J. F. G. Clark.)

RASPBERRY

RASPBERRY CANE BORER (Oberca bimaculata Oliv.)

Maine. H. B. Peirson (August 19): Abundant at Hallowell on July 17.

Ohio. T. H. Parks (August 20): Specimens received from Sandusky and Marion. Many canes infested.

Utah. G. F. Knowlton (August 9): Tunneler from top to roots of most canes in a $\frac{1}{2}$ -acre raspberry patch at Centerville. Nearby patches of boysenberries and blackberries also infested.

A GEOMETRID (Synchlora aerata F.)

Massachusetts. A. I. Bourne (August 23): Specimens received on August 1 from a small planting near the college at Amherst. Very abundant and causing considerable damage.

A SAWFLY (Priophorus rubivorus Rohw.)

California. L. M. Smith (August 1): Larvae are causing serious damage to raspberries in the Santa Clara Valley, particularly in the district around Gilroy. Second generation largely in the pupal stage. More abundant than it has been since 1934. (Det. by W. Middleton.)

GRAPE

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

New York. N. Y. State Coll. Agr. News Letter (August 12): Increased egg laying occurred on grapes in Chautauqua County, western New York, during the last week of July and for a few days in August, owing to the late emergence of the overwintered brood. First-brood emergence greatly increased from August 7 to 11. Second-brood egg laying very light. Infestation in some of the heavily infested vineyards lighter than last year, but first-brood damage is heavier in a number of plantings.

Michigan. R. Hutson (August 23): Eggs abundant at Lawton, Paw Paw, and Benton Harbor.

GRAPE LEAF FOLDER (Desmia funeralis Hbn.)

Mississippi. L. J. Goodgame (August 26): Caused injury to grape in Monroe and Prentiss Counties.

Missouri. L. Haseman (August 20): Much less abundant and destructive to grapes throughout central Missouri since the rains early in August.

GRAPE PHYLLOXERA (Phylloxera vitifoliae Fitch)

Minnesota. M. W. Wing (August 15): Present on grape in Ramsy and Hennepin Counties.

PECAN

PECAN SHUCKWORM (Laspeyresia caryana Fitch)

Mississippi. D. W. Grimes (August 26): Reported from Leflore County.

HICKORY NUT CURCULIO (Conotrachelus affinis Boh.)

Mississippi. C. Lyle and assistants (August 26): Specimens in pecan nuts received from Holmes and Washington Counties. Reported as damaging pecan nuts in Leflore County.

PECAN WEEVIL (Curculio caryae Horn)

Georgia. T. L. Bissell (August 10): Slowly emerging from soil. On August 8 10 weevils were jarred from 4 trees in an orchard at Zebulon, central part of State, heavily infested in 1939 and in previous years. Few punctured nuts.

CITRUS

CALIFORNIA RED SCALE (Aonidiella aurantii Mask.)

California. R. S. Woglum (August): Fully a month in advance of last season. Increase most noticeable in interior areas, owing to weather conditions, and greatest on oranges, which have been less intensively treated than have the lemons.

BLACK SCALE (Saissetia oleae Bern.)

California. R. S. Woglum (August): Both single- and double-brooded scale much lighter in all the coastal districts than for many seasons. Hatch practically complete in most orchards by end of July. Young are developing rapidly in size in the double-brooded area.

YELLOW SCALE (Aonidiella citrinus Coq.)

California. R. S. Woglum (August): Heavy summer build-up noticeable, causing injury by pitting fruit and dropping leaves.

FIG

RAISIN MOTH (Ephestia figulilella Greg.)

California. D. F. Barnes and G. H. Kaloostian (August): Comparison between overwintered larval populations and the spring flight of moths produced by the overwintered larvae made in two vineyards in Tulare County for this year and last. Larval population was reduced by about 90 percent in 1940, while the spring flight was reduced by 68 percent, indicating larger survival of overwintered larvae this winter than last. Lack of parasitization was important factor in this survival. Parasitization among overwintered larvae was 10.7 percent in 1939, as compared with 3.4 percent in 1940. Most abundant parasite was Idechthis canescens Grav.

CITRUS MEALYBUG (Pseudococcus citri Risso)

Mississippi. C. Lyle and assistants (August 26): Reported as numerous on fig on one property in Harrison County. Light infestation noted in a greenhouse in Lauderdale County.

A SCOLYTID (Stephanoderes ficus Hopk.)

Pennsylvania. F. B. Littlefield (August 15): Adult and larval specimens taken from a fig tree on August 10 at West Chester, in southeastern Pennsylvania. (Det. by M. W. Blackman and W. H. Anderson.)

TRUCK CROP INSECTS

BLISTER BEETLES (Meloidae)

Pennsylvania. E. A. Richmond (August 28): The ash-gray blister beetle (Macrobasis unicolor Kby.) has been especially abundant in the northeastern part of the State on tomatoes, potatoes, beans, and lupines.

Ohio. T. H. Parks (August 26): Caused serious damage to cabbage and beans in some localities. Also reported as attacking tomatoes.

Kentucky. M. L. Didlake (July 24): Epicauta trichrus Pallas and E. cinerea Forst. eating petals of cosmos at Shelbyville.

Alabama. J. M. Robinson (August 9): E. trichrus reported as attacking cotton at Huntsville.

Mississippi. C. Lyle and assistants (August 26): Reported as injuring garden crops in Jefferson County. Specimens of M. immaculata Say and E. lemniscata F. were collected in soybeans in Oktibbeha County. E. lemniscata injury also reported from northwestern counties, and observed feeding on sweetpotato plant in Choctaw County.

Missouri. L. Haseman (August 20): M. immaculata, M. unicolor, and E. cinerea marginata F. occurred in unusual numbers throughout the State during the month.

Minnesota. M. W. Wing (August 15): M. unicolor present at Baudette.

Nebraska. H. D. Tate (August 16): Numerous complaints received from eastern Nebraska during period from July 16 to August 15. E. lemniscata found attacking clover in lawns in Lancaster County on July 25. Specimens of E. maculata Say found on sorghum in Buffalo County. Heavy infestation of M. unicolor observed on potatoes in Lancaster County on July 23. Specimens of M. immaculata received from Webster and Buffalo Counties. Heavy infestation observed on potatoes in Lancaster County on July 23. Also observed on potatoes in Hamilton County and on Chinese elm in Nuckolls County on July 23.

Kansas. H. R. Bryson (August 28): Considerable injury to small trees in some areas. Injury to Chinese elms reported from Jewell County. Reports of injury also received from Linn, Comanche, Riley, Osage, Elk, and Marshall Counties.

Texas. R. K. Fletcher (August 13): E. lemniscata was causing severe injury to gardens in Harris County on July 29.

Utah. G. F. Knowlton (July 31): E. pennsylvanica Deg. was damaging alfalfa blossoms at Eden.

STRIPED CUCUMBER BEETLE (Diabrotica vittata F.)

Maine. J. H. Hawkins (August 1): Larval injury to roots of squash and cucumbers and injury to leaves and stems by the adults caused complete destruction of one-half of certain plantings.

Louisiana. C. O. Eddy (August 28): The striped cucumber beetle is abundant on unsprayed cucumbers. The spotted beetle D. duodecimpunctata F. is becoming more abundant daily on soybeans cowpeas, cucumbers and garden beans.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Vermont. H. L. Bailey (August): Less abundant than for many years, according to observations in potato fields inspected for seed certification.

Ohio. N. F. Howard (August 8): Abundant and very injurious to late beans in the Columbus area.

Minnesota. M. W. Wing (August 15): Moderately abundant on potato at Benson.

Nebraska. H. D. Tate (July 25): Heavy infestation on potato plants in experimental plots on the Agricultural College campus.

GARDEN FLIA HOPPER (Halticus citri Ashm.)

Virginia. A. M. Woodside (August 22): Quite abundant on red clover and causing considerable damage in some locations in Augusta and Albemarle Counties, particularly in orchards; also attacking weeds, including morning-glory and chicory.

Florida. C. B. Wisecup (August 28): General infestation over entire Sanford district. Much damage to young celery seedlings in plant beds.

SOUTHERN MOLE CRICKET (Scapteriscus acletus R. & H.)

Florida. C. B. Wisecup (August 28): All the Plant City area, in eastern Hillsborough County, heavily infested. Infestation appears to be increasing each year, until it now has reached the peak noticed in the Sanford area about 4 or 5 years ago. Infestation in Sanford area apparently stable or declining.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Washington. L. G. Smith (August 7): Adult specimens received from Clarke County further substantiating the invasion of the insect into western Washington for the first time, presumably working their way down the Columbia River gorge. Severely damaged potato field observed north of Thorp, in the Kittitas Valley.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

Connecticut. A. W. Morrill, Jr. (August 22): Second generation greatly retarded and did not last as long as usual. Emergence apparently normal in numbers at first but sporadic and peak not as high as usual.

New York. N. Y. State Coll. Agr. News Letter (August 19): Extremely numerous in many counties in the western and southern tier of counties of the State. Particularly severe in the West Falls district of Erie County and the Cohocton district of Steuben County.

Minnesota. M. W. Wing (August 15): Present at Redwood Falls and on potato at Benson.

HORNWORMS (Protoparce spp.)

New York. N. Y. State Coll. Agr. News Letter (August 19): Tomato worms present in small numbers in many fields in Erie County, western New York. (August 26): General on tomatoes in Monroe County, but damage is of little commercial importance, except in a few fields. Found generally in Wayne County but damage is less severe than last year.

Ohio. T. H. Parks (August 24): Tomato hornworms appeared in larger numbers than usual in fields of canning tomatoes over western Ohio, causing severe damage.

Nebraska. H. D. Tate (August 16): Requests for control on P. quinquemaculata Haw. received from Seward and Platte Counties on July 22 and August 5, respectively.

BEANS

MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

Maine. H. B. Peirson (August 19): Pupating in Augusta region on August 11.

J. H. Hawkins (August 27): Spread throughout all territory west of the Penobscot River. Infestation is general, and commercial injury is rare even though increase is steady.

New York. N. Y. State Coll. Agr. News Letter (August 26): New generation is laying eggs. In eastern New York, on Long Island, bean beetles have recently become more numerous than at any time this season. New generation present in large numbers where early beans were grown and beginning to lay eggs in Columbia County.

Delaware. L. A. Stearns (August 23): Survey of extensive lima bean plantings in eastern Sussex County indicates very light infestation.

Georgia. T. L. Bissell (August 10): Adults emerging rapidly at Experiment and laying eggs. Very few larvae present. Considerable injury to lima beans.

Alabama. J. M. Robinson (August 15): Abundant at Auburn.

Mississippi. C. Lyle and assistants (August 26): Specimens received from Choctaw, Kemper, Hinds, Lauderdale, and Oktibbeha Counties, where beans are being injured. Heavy infestation reported in Leake County; general with severe damage in the Meridian area; and stripping beans and causing some injury to field beans and cowpeas in the northeastern counties.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Kentucky. M. L. Didlake (August 26): Injurious in Shelbyville on July 24.

Mississippi. C. Lyle and assistants. (August 26): Abundant in gardens in Pearl River County, and generally infesting beans and cowpeas in the Durant area.

Louisiana. I. J. Becnel (August 28): Causing serious damage to soybeans in Caddo and Bossier Parishes.

BEAN APHID (Aphis rumicis L.)

Ohio. T. H. Parks (August 23): Serious and widespread in Columbiana County, northeastern Ohio, principally on navy beans.

Minnesota. M. W. Wing (August 15): Present on beans in Carver County.

GREEN STINKBUG (Acrosternum hilare Say)

Kentucky. M. L. Didlake (August 13): Severely injuring lima beans in Woodford County.

PEAS

PEA APHID (Macrosiphum pisi Kltb.)

Maine. H. B. Peirson (August 19): Very abundant on August 10 in small garden plots back in deep woods, 10 miles from nearest cleared land or farming area, in Washington County.

J. H. Hawkins (August 1): Not abundant enough in central Maine to cause commercial damage. A threatened serious infestation in many places was completely controlled by a disease.

PEA WEEVIL (Bruchus pisorum L.)

Washington and Oregon. L. G. Smith (July 30): About 25 percent less weevils reported than last year throughout the Blue Mountain pea-canning area, which lies in Columbia and Walla Walla Counties in Washington and in Umatilla County in Oregon. Very few appeared in later fields. Some adults developed in volunteer peas.

BEAN THRIPS (Hercothrips fasciatus Perg.)

Idaho. T. A. Brindley (July 26): All pea plants in a patch at Culdesac Nez Perce County silvered by the feeding of this thrips. (Det. by J. C. Crawford)

CABBAGE WEBWORM (Hellula undalis F.)

South Carolina. F. Sherman and W. C. Nettles (August 26): Noticeable around Clemson on cabbage and collards.

HARLEQUIN BUG (Murgantia histrionica Hahn)

South Carolina. F. Sherman and W. C. Nettles (August 26): More noticeable after some scarcity early in season.

Mississippi. C. Lyle and assistants (August 26): Abundant in the Meridian area, and in Holmes and Pearl River Counties.

SQUASH

SQUASH BUG (Anasa tristis Deg.)

Maine. J. H. Hawkins (August 10): Very abundant and causing much injury to pumpkin and squash in central, western, and southern parts of State.

South Carolina. F. Sherman and W. C. Nettles (August 26): Abundant at Clemson in midsummer.

Mississippi. D. W. Grimes (August 26): Adults and young of A. armigera Say severely damaged gourds in Holmes County.

Ohio. T. H. Parks (August 23): Very abundant on some plantings of squash.

Michigan. R. Hutson (August 23): Present in the southern part of the State.

Missouri. L. Haseman (August 20): Less abundant than usual throughout central Missouri.

Minnesota. M. W. Wing (August 15): Present on squash at Preston.

Oklahoma. F. A. Fenton (August 22): Second generation prevalent on pumpkins and late squashes at Stillwater, Inola, and Gotebo.

E. J. Newcomer (July 31): Very numerous on squash near Sunnyside, Yakima Valley.

Oregon. E. J. Newcomer (August 8): Reported to be plentiful in Umatilla County.

SQUASH BORER (Melittia satyriniformis Hbn.)

Massachusetts. A. I. Bourne (August 23): Reported as very generally abundant for first time in a number of years.

Michigan. R. Hutson (August 23): Requests for control received from several places in southern Michigan.

Illinois. C. C. Compton (August 24): Much less abundant in northern Illinois than for the last several years.

MELONS

MELON APHID (Aphis gossypii Glov.)

Michigan. R. Hutson (August 23): Present at Dearborn on July 26. Also present at Muskegon, Detroit, Zeeland, Grand Rapids, Chesaning, Sawyer, and Grandville.

Nebraska. H. D. Tate (July 15): Found on cucumber vines in Clay County.

Oklahoma. F. A. Fenton (August 22): Causing severe damage to cantaloups in the Muskogee trucking area.

Texas. R. K. Fletcher (August 13): Caused severe injury in Smith County on July 27, and in Tarrant County on July 31.

ASPARAGUS

ASPARAGUS BEETLES (Crioceris spp.)

Minnesota. M. W. Wing (August 15): C. asparagi L. and C. duodecimpunctata L. present on asparagus at St. Paul.

TURNIP

RED TURNIP BEETLE (Entomoscelis adonidis Pallas)

Montana. H. B. Mills (August 12): Attacking gardens at White Sulphur Springs, in Meagher County.

CELERY

A WEEVIL (Listronotus latiusculus Boh.)

Indiana. J. J. Davis (August 3): Larvae were doing considerable damage to celery in the northern part of the State. Specimens reared to the adult stage. (Det. by L. L. Buchanan.)

ONIONS

ONION THRIPS (Thrips tabaci Lind.)

Massachusetts. A. I. Bourne (August 23): Development and infestation very light in the Connecticut River Valley early in the season, owing to weather conditions, but built up rapidly during the latter part of July. Yield of seed onions seriously reduced because of weather conditions and infestations.

SWEETPOTATO

SWEETPOTATO WEEVIL (Cylas formicarius F.)

Mississippi. C. Lyle and assistants (August 26): Infestation will probably be lighter in the Poplarville area because of absence of volunteer sweetpotato plants. Numerous on perennial morning-glory plants along the beach in Jackson County, but not many found on farms.

STRIPED TORTOISE BEETLE (Metritona bivittata Say)

Mississippi. C. Lyle and assistants (August 26): Specimens received from Montgomery and Webster Counties. Reported as abundant in most sweetpotato fields in the Meridian area, as causing severe damage in Durant area, and as stripping plants in Tippah County.

ARGUS TORTOISE BEETLE (Chelymorpha cassidea F.)

Mississippi. J. G. Hester (August 26): Received from Webster County where sweet potatoes were being injured. Some damage done to sweetpotatoes in surrounding counties.

STRAWBERRY

STRAWBERRY CROWN BORER (Tyloclerma fragariae Riley)

Kentucky. M. L. Didlake (August 26): Reported as severely injuring strawberry in Louisville area.

PEPPER

PEPPER WEEVIL (Anthonomus eugenii Cano)

California. R. E. Campbell (August): Infested peppers received from Santa Barbara County on August 23, which is the first record of the weevil in this county.

J. C. Elmore (August 23): Damaged peppers considerably this season in southern California, in Orange, San Diego, and Los Angeles Counties. Early fields damaged from 5 to 25 percent. Late fields, comprising about 25 percent of the acreage, damaged from 50 to 70 percent.

SUGAR BEETS

BEEET LEAFHOPPER (Eutettix tenellus Bak.)

Utah. G. F. Knowlton (August 8): Curly-top injury to sugar beets and tomatoes throughout the State more severe than usual. (August 14): Cannners estimate that 40 to 50 percent of the tomato plants in several districts were destroyed, although some patches suffered little. Injury is becoming more conspicuous, causing little growth and considerable curly top.

TOBACCO

HORNWORMS (Protoparce spp.)

Connecticut. A. W. Morrill, Jr. (August 22): P. quinquemaculata Haw. and P. sexta Johan. unusually scarce. Appeared late and none of the individuals placed for hibernation in a protected cage emerged.

TOBACCO FLEA BEETLE (Epitrix parvula F.)

Florida. F. S. Chamberlin (August 15): Infestation unusually light throughout the tobacco-growing season in Gadsden County. Populations increased during latter part of the season, but caused only light damage.

PLANT BUGS (Euschistus spp.)

Kentucky. M. L. Didlake (August 26): E. servus Say and E. tristigmus Say were injuring tobacco and garden crops at Hodgenville on July 25.

TOBACCO THRIPS (Frankliniella fusca Hinds)

Connecticut. A. W. Morrill, Jr. (August 22): Scarce during first half of season to July 19, but more numerous during the latter, very dry part of the season. Very numerous in the Portland area.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

South Carolina. F. F. Bondy, et al. (August 17): Numbers are gradually increasing in Florence County. A total of 54 weevils were caught on 4 flight-screener traps during the week, making a total of 75 caught this month. A total of 806 weevils was caught on the same traps during August 1939, and 707 in August 1938. However, only an occasional weevil can be found in the few cotton blooms in the fields.

Georgia. R. T. Harwell (August 16): Infestation is still steadily climbing. Squares not so plentiful as last week, and light boll damage beginning to occur. Highest infestation for the week is 33.33 percent.

P. M. Gilmer, et al. (August 3): Infestations have been slowly rising in Tift County during the week, increases amounting to from 1 to 8 percent. Heaviest infestations in upland cotton. In treated fields, where infestation has been kept low, the rise averages about 3 to 4 percent, and in untreated fields from 5 to 8 percent. In the southern sections of the Tift-Cook-Berrien County area the increase has been much higher. Midsummer migration has started and apparently is well under way in the southern tier of counties. Movement into treated fields around Tifton has been rather small and is increasing, the increase being gradual rather than sudden, as is usually the case.

L. W. Morgan (August 16): Rather heavy migrations into the cottonfields in Lowndes and Echols Counties this week. Highest infestation of the week is 24.5 percent, as compared with 11.75 percent last week.

Florida. C. S. Rude, et al. (August 17): Infestation has doubled during the last week in Lake, Union, Alachua, Gilchrist, and Marion Counties, being 24.4 percent, as compared with 12 percent last week. Average infestation for week ended August 19, 1939, was 68 percent, and for the week ended August 20, 1938, it was 72 percent.

Alabama. J. M. Robinson (August 17): Abundant at Auburn and Beauregard.

Mississippi. C. Lyle (August 26): Infestation very light in most Delta counties during August and practically nonexistent in the extreme northern part of the State. Abundant in spots in central Mississippi but not generally. Generally abundant in the Meridian area, whereas a light infestation was generally observed in the extreme southern part of the State.

E. W. Dunnam, et al. (August 10): In Washington County 1,000 squares examined on 4 plantations showed an infestation ranging from 3.5 to 31.0 percent. In Sharkey County 2,000 squares examined on 1 plantation showed an infestation of 5 percent. Adults are extremely scarce. In many fields in which punctured squares have been found no grubs could be found in fallen squares. (August 24): Weevils are concentrating in the terminals now. It appears that there will be a very small population to go into hibernation.

R. L. McGarr, et al. (August 17): Infestation continued low in most of the cottonfields examined this week in Oktibbeha and Lowndes Counties. In a few fields the infestation had increased enough to cause considerable damage. A total of 7,000 squares examined in the check plots of the experimental cuts and in 7 untreated fields showed an average infestation of 14.9 percent, as compared with 13.3 percent the previous week. Infestation in 1939 at this time was 65 percent.

Louisiana. R. C. Gaines, et al. (August 17): In Madison Parish 14,300 squares examined in plots untreated all season showed an average of 58.4 percent punctured squares, as compared with 36.4 percent last week. Weevils taken on field screens for week ended August 16 totaled 44, as compared to 55 at this time in 1939, and 157 in 1938.

I. C. Becnel (August 28): Extensively damaging cotton in Caddo and Bossier Parishes.

Oklahoma. C. F. Stiles (August 23): Infestation is building up quite rapidly throughout southeastern Oklahoma. Infestations ran as high as 40 percent on August 13 in fields in Choctaw County and is even higher now, owing to weather conditions. Cotton on second bottoms near bluffs and timber much more heavily infested than that in the first bottoms, which are subject to overflow.

Texas. F. L. Thomas (August 6): Considerable damage still done, despite warm weather, and weevils are rapidly spreading to uninfested fields. (August 20): Numbers have increased in most fields and practically all young fruit is now being damaged. There is a natural movement from cotton which is opening to fields which show growth.

K. P. Ewing, et al. (August 10): In McLennan County 2,000 squares examined in 4 experimental fields showed an average of 39.7-percent punctures. The high increase over last week, averaging 9.96 percent, was no doubt owing to concentration of weevils in the few squares left on the plants. At Mexia 1,800 squares inspected in 3 fields showed an average of 67.6-percent punctures, as compared with 58.4 percent for last week. More squares left on cotton at Mexia than around Waco. (August 24): Nearly all the cotton is mature and very few squares are left on the plants. Weevils are taking these and doing considerable damage to the small bolls in most sections in the McLennan County area, particularly in the river bottoms.

C. R. Parencia, et al. (August 3): Observations in the Guadalupe River bottoms near Victoria on August 1 showed that weevils have destroyed most of the squares which set after July 1. Infestation in two fields was above 80-percent punctured squares. Sea-island cotton in southern Jackson and western Wharton Counties examined on July 29. Cotton heavily fruited and squares plentiful. Four fields examined showed an average of 32-percent punctured squares. Infestation appears recent, as only a few flared squares were observed. (August 17): Most of the scattering squares present in Calhoun County have been punctured, but little damage has been done to the bolls.

A WEEVIL (Compsus auricephalus Say)

Louisiana I. J. Becnel (August 28): Very common in several cotton fields in Caddo and Bossier Parishes throughout the summer. Infestation counts in one field showed an average of almost two adults per plant. Damage to foliage was readily evident where the infestation was several beetles per plant. A few adults were also collected on cotton in Natchitoches Parish and on Irish potato foliage in Bossier Parish.

COTTON LEAF WORM (Alabama argillacea Hbn.)

Georgia. L. W. Morgan (August 2): Larvae found in cotton in Lowndes County on July 31.

Florida. C. S. Rude, et al. (August 10): Heavy populations in fields in southern Marion and part of Gilchrist Counties. (August 17): Serious in Marion County, where frequent rains have made control almost impossible. Damage light in other sections.

Mississippi. G. L. Bond and assistants (August 26): First leaf worm was found on cotton in George County on August 1. Other specimens found in the same field on August 12.

Louisiana. C. Lyle (August 19): A half-grown larva was reported at Tallulah on August 15.

I. J. Becnel (August 28): Three larvae were collected at Hosston, Caddo Parish, on August 17. First larvae in the vicinity of Baton Rouge was collected on August 20.

Texas. F. L. Thomas (August 6): First leaf worms in central Texas were found nearly half grown on August 6 in the bottom lands of Burleson County. (August 20): Many fields completely defoliated in the lower Rio Grande Valley, and fields ragged in Calhoun County.

C. R. Parencia, et al. (August 3): One small larva found near Port Lavaca, Calhoun County, on July 31. A number of adults and small larvae observed on August 2 in the same field.

K. P. Ewing, et al. (August 7): The first larva, about half grown, found in McLennan County was collected on August 6 in the vicinity of Riesel. It is interesting to note that the first larva was found in the same field last year. (August 24): Several found in different localities in the McLennan County area during the week. No injurious infestations noted.

A. J. Chapman (August 17): The first specimen was found in Presidio County on August 9. Spotted infestations have occurred in Presidio County in sufficient proportions to necessitate control measures. Infestation not general.

Arizona. W. A. Stevenson (August 10): The first leaf worms were found in an 80-acre field of short-staple cotton near Marana, Pima County, on August 5, whereas in 1939 the first larvae were found in the Santa Cruz Valley on August 28. Subsequent examinations showed limited numbers of larvae present in a field of long-staple cotton. All specimens were very small, probably in the first or second instar..

BOLLWORM (Heliothis armigera Hbn.)

North Carolina and South Carolina. F. F. Bondy, et al. (August 3): Injury to squares and young bolls increased during the week in Florence County, S. C., some fields suffering more from bollworm than from boll weevil. This condition also prevailed in eastern North Carolina, according to observations.

Georgia. L. W. Morgan (August 16): A few present in all fields in Lowndes and Echols Counties, but in such small numbers that damage is not serious.

Florida. C. S. Rude, et al. (August 10): Serious in some fields and present and doing some damage in most fields in the cotton-growing area.

Mississippi. R. L. McGarr, et al. (August 3): Observed to be doing damage in a few fields of cotton this week in Oktibbeha and Lowndes Counties.

Louisiana. I. J. Becnel (August 28): Damaging cotton extensively in Caddo and Bossier Parishes. Many of the larger bolls are being attacked by the larvae.

Oklahoma. C. F. Stiles (August 23): About 5-percent damage done to cotton in the Red River counties of southeastern Oklahoma.

Texas. F. L. Thomas (August 6): Scattering damage caused in many fields in central Texas. Larvae of all sizes present.

A. J. Chapman (August 17): Much of the late cotton in Presidio County severely damaged.

Arizona. W. A. Stevenson (August 3): Infestation in the Marana section of Pima County, while not serious, showed a definite increase during the last week. Larvae found to be feeding primarily on squares.

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. A. J. Chapman (August 17): Infestation counts in 29 fields in Presidio County in 1939 showed an average infestation of 1.45 percent during the first 15 days in August, whereas the infestation counts in 28 fields during the same period this year showed an average of 1.79 percent. Average infestation for 22 identical fields for the 2 years was 1.68 percent in 1939, as compared to 2.23 percent this year. Crop in many of the fields was much later than last year, a fact that must be taken into consideration in comparing the infestation from year to year.

SALT-MARSH CATERPILLAR (Estigmene acrea Drury)

Mississippi. E. W. Dunnam, et al. (August 17): One infestation noted at the edge of a cottonfield in Washington County.

Texas. C. R. Parencia, et al. (August 17): Several fields attacked in Calhoun County, but in most instances the cotton was about mature. Apparently open cotton was not damaged.

APHIDS (Aphidae)

South Carolina. F. F. Bondy, et al. (August 3): Aphids decreased in all fields, including the treated fields, during the week in Florence County, probably owing to the dry, wilted condition of the plants as well as to a build-up in parasites and predators. Shedding of leaves and young fruit very heavy in most fields.

Georgia. E. J. O'Neal, et al. (August 17): Infestation in Tift County has dropped off since last week; present but doing no damage.

Mississippi. C. Lyle and assistants (August 26): Medium-to-heavy infestations of the cotton aphid (Aphis gossypii Glov.) found in treated fields in the Meridian area; also heavy infestations in treated fields at State College.

E. W. Dunnam, et al. (August 24): Aphids are increasing very slowly on untreated cotton in Washington County. On treated cotton the small, yellow forms are increasing very rapidly. The blue-green, large forms have not appeared, and winged forms are increasing slightly on treated cotton. Population at Stoneville is strikingly different from that at State College, where there is a heavy infestation of large aphids. This form does not appear here until October, after second growth begins.

Louisiana. R. C. Gaines, et al. (August 17): Aphids have increased in many cottonfields in Madison Parish, especially where treated. Heavy infestation found in a few untreated plots.

Texas. K. P. Ewing, et al. (August 17): Infestation records made in the three aphid-boll weevil experiments in McLennan County during the week showed an average in the check plots of 0.05 aphid per square inch and in the treated plots of 3.31 aphids per square inch. On the whole there are probably fewer than normal in cottonfields in this section.

MIRIDS (Leucopoecila spp.)

New Mexico. J. R. Eyer (August 14): Both adults and nymphs of Leucopoecila sp. are injuring young squares, 10 to 15 per 100 sweeps of the net being collected.

Texas. R. K. Fletcher (August 13): L. albofasciata Reut. was present on cotton in Pecos County on July 31.

COTTON STELINER (Dysdercus suturellus H. S.)

Florida. C. S. Rude (August 10): This insect has begun to show up in Lake County and was taken in two fields in Marion County.

WHITEFLIES (Aleurodidae)

Mississippi. E. W. Dunnam, et al. (August 24): Present in most cottonfields in Washington County.

Texas. C. R. Parencia, et al. (August 3): A few whiteflies observed in the boll weevil-aphid experimental field in Calhoun County since the experiment was started early in July.

RED SPIDERS (Tetranychus spp.)

North Carolina. F. F. Bondy, et al. (August 3): Severe injury observed in eastern North Carolina, one field being seen where practically every leaf and most of the fruit had been shed.

South Carolina. F. Sherman and W. C. Nettles (August 26): Considerable local damage caused on cotton.

Mississippi. E. W. Dunnam, et al. (August 24): Unconfirmed reports received on August 23 that red spiders were killing cotton in small spots in Washington County.

Arkansas. D. Isely (August 26): Very injurious to cotton in the counties in northeastern Arkansas. Probably more damage than in any year since 1925.

FOREST AND SHADE-TREE INSECTS

FALL WEBWORMS (Hyphantria spp.)

New England. E. P. Felt (August 26): H. textor Harr. moderately abundant in southern New England and southeastern New York, as indicated by unsightly nests here and there on various trees.

Maine. F. H. Lathrop (August 23): H. cunea Drury nests more numerous than usual especially in eastern part of the State, near Bangor and Orono and eastward toward Ellsworth.

Massachusetts. A. I. Bourne (August 23): Tents becoming very conspicuous. Considerably less numerous than normal, but nearly as abundant as last year. Reported as more widespread in Berkshire County and in parts of Plymouth and Bristol Counties, in southeastern Massachusetts.

South Carolina. F. Sherman and W. C. Nettles (August 26): Webs noticeable on persimmon, pecan, and hickory.

Mississippi. C. Lyle (August 26): Adults of H. cunea received from Covington County, in southern part of the State, on August 5. Reports indicate that infestation decreased in Poplarville area, is generally heavy in the Meridian area, and not so numerous as expected in the southeastern counties. Second brood was hatching in the State College area about August 15 but egg masses were still being deposited on August 20. Farther south and in the Delta the second-brood larvae are from one-third to one-half grown.

Ohio. E. W. Mendenhall (August 6): Nests are numerous on wild cherry trees in Morrow County, where the damage is light.

Minnesota. M. W. Wing (August 15): H. cunea present on willow and apple at Cokato.

SADDLED PROMINENT (Heterocampa guttivitta Walk.)

New Hampshire. J. V. Schaffner, Jr. (August 13): Reported as abundant in the White Mountain region of the State, causing some defoliation in the vicinity of Bartlett.

Vermont. H. L. Bailey (August): Appeared in outbreak on Herrick Mountain, at Ira, Rutland County, western Vermont. Maple and beech defoliated or badly eaten over a 1- to 2-square mile area. Pupation had taken place, except for a few larvae, by August 23. Many larvae of Calosoma sp. working among pupae in leaf mold.

New York. P. B. Dowden (August 16): Noticeable thinning of foliage of beech and maple in woodland on Slide Mountain, Wittenberg Mountain, and Hunter Mountain in the Catskills.

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma A. & S.)

Pennsylvania. E. A. Richmond (August 28): Larvae found causing damage in Luzerne and Monroe Counties.

Ohio. E. W. Mendenhall (August 20): Nests or cocoons are numerous on elm trees in central Ohio.

HICKORY TUSSOCK MOTH (Halisidota caryae Harr.)

Connecticut. G. H. Plumb (August 24): Apparently a general feeder this season, as larvae were noted on several different species of hardwoods, including elm, hickory, ash, beech, walnut, and maple.

Pennsylvania. E. A. Richmond (August 28): Larva found causing damage in Luzerne and Monroe Counties.

CECROPIA MOTH (Samia cecropia L.)

North Dakota. J. A. Munro (August 24): Outbreak in Bismarck is most severe. Boxelder trees suffer most extensive defoliation, some trees being literally stripped of their leaves. Heavy infestation is limited to the Bismarck vicinity.

SCALLOP-SHELL MOTH (Calocalpe undulata L.)

Massachusetts. A. I. Bourne (August 23): Webs common on wild cherries. In general, more common than usual.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

New York. J. V. Schaffner, Jr. (August 15): Reported that several thousand acres of forest along Dry Brook Ridge, south of Margaretville, and also near Phoenicia in the Catskills show partial to complete defoliation.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Pennsylvania. T. L. Guyton (August 20): Numerous in eastern and central counties of the State.

J. P. Slesman (August 21): Abnormally heavy in the Philadelphia area, feeding on locust, maple, spruce, arborvitae, juniper, and other host plants.

District of Columbia. L. G. Baumhofer (August 24): Numerous inquiries during July and August indicate that this pest is prevalent on evergreens in Washington and vicinity.

Virginia. A. M. Woodside (August 14): Defoliated a few small, isolated locust trees in Staunton.

L. A. Hetrick (August 20): Infesting juniper and arborvitae at West Point and Aylett. Defoliation has caused death of some ornamentals.

South Carolina. F. Sherman and W. C. Nettles (August 26): Evergreen bagworm apparently more abundant than normal.

Alabama. J. M. Robinson (August 17): Reported as active on cedars at Troy on July 22; at Shorter on August 15; at Auburn on August 1; and at Cullomburg on July 18.

Ohio. T. H. Parks (August 24): Much defoliation of arborvitae, willow, and other trees in the southern half of the State.

Mississippi. C. Lyle (August 26): Specimens received from Pontotoc, Simpson, Tallahatchie, and Tate Counties. Also reported present in Prentiss County, abundant in the Meridian area, all over the northeastern counties, in Holmes and Washington Counties, and to be causing severe damage in one locality in Hinds County.

Missouri. L. Haseman (August 20): Many complaints received during August from many parts of the State, where bagworms have been injuring evergreen, boxelder and other trees.

Oklahoma. F. A. Fenton (August 22): Reported at Elmore City.

Texas. R. K. Fletcher (August 13): Injury severe on red cedar and arborvitae in Milam, Colorado, El Paso, and Ellis Counties.

ALDER

EUROPEAN ALDER LEAF MINER (Fenusa dohrnii Tischbein)

Pennsylvania. E. P. Felt (August 26): Somewhat abundant at Wynnewood.

ASH

AN APHID (Prociphilus fraxinifolii Riley)

Minnesota. M. W. Wing (August 15): Present on ash at Saint Paul.

Utah. G. F. Knowlton (August 10): Heavily infesting terminal leaves of ash at Hyde Park and Smithfield. Attended by large numbers of black ants.

AN ASH FLOWER GALL (Eriophyes fraxiniflora Felt)

Minnesota. M. W. Wing (August 15): Present on white ash at Stony Point.

BIRCH

BRONZED BIRCH BORER (Agilus anxius Gory)

General. E. P. Felt (August 26): Work somewhat prevalent upon white, especially ornamental, birch here and there in the Northeastern States.

A CASE BEARER (Coleophora salmani Heinr.)

Maine. H. B. Peirson (August 19): Heavily infesting and killing birch trees on island and coastal towns from Isle au Haut to Machias.

AN APHID (Calaphis betulaecolens Fitch)

New Jersey. M. D. Leonard (August 22): A number of birch trees examined at Ridgewood were all found to have developed a considerable number of this pest, and honeydew was abundant on the leaves.

BIRCH LEAF MINER (Fenusa pumila Klug)

New York. M. D. Leonard (August 25): Moderate infestation on most trees at Flushing.

New Jersey. M. D. Leonard (August 22): Fairly common on a number of trees at Ridgewood.

A SAWFLY (Phyllotoma nemorata Fall.)

Maine. H. B. Peirson (August 19): Birch leaf-mining sawfly generally light in eastern Maine. On July 18 new mines were beginning to show at Boothbay.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Maine. H. B. Peirson (August 19): Causing severe elm defoliation locally in Gardiner on August 7. Full-grown larvae descending trees, some pupae seen, also an occasional adult.

Vermont. H. L. Bailey (August): Abundant for first time in Burlington, Chittenden County, northwestern Vermont. Also caused noticeable damage to foliage in Vergennes, Brandon, and other towns south of Burlington, on the western side of the State. Feeding was later than usual, some larvae still being found at Vergennes on August 23.

Massachusetts. A. I. Bourne (August 23): First adults of the second brood began to appear early in the month. Much more abundant than usual over the State as a whole, and damage is particularly conspicuous in eastern and southeastern parts of the State. Egg laying on new growth of leaves developing on trees practically defoliated by the first brood of larvae observed in Plymouth County.

Connecticut. M. P. Zappe and P. Wallace (August 23): More abundant throughout the southern half of the State than for several years. Local defoliation in towns in the northern half. Adults depositing eggs and a few newly hatched second-generation larvae observed on August 16.

New York. P. B. Dowden (August 16): Outbreaks on elm trees observed in the following localities of the State: Highland, Esopus, Millbrook, Kingston, Poughkeepsie, Saugerties, and Harrison.

Pennsylvania. J. P. Slesman (August 5): Widespread throughout the Philadelphia area, the elms having been completely defoliated in many localities.

T. L. Guyton (August 9): Numerous on elm in one garden in Harrisburg.

New Jersey. C. W. Collins (August 9): Noticeable injury had occurred in parts of Somerset, Morris, and Essex Counties in areas where the species had been numerous during the last few years. More abundant in Morristown than in any year since 1934 at least.

Maryland. E. N. Cory (August 6): Attacking elms at Leonardtown.

Virginia. L. A. Hetrick (August 24): Eggs, larvae, and adults abundant on young elms at West Point on August 8. Trees had already suffered severe injury.

LAGER ELM LEAF BEETLE (Monocesta coryli Say)

Florida. A. H. Madden (July 31): Larvae collected on elm at Quincy on July 18. Leaves completely skeletonized on two trees. No other stage of insect present. (Det. by W. H. Anderson.)

Alabama. J. M. Robinson (August 17): Reported on elm at Montgomery on August 13 and at Fitzpatrick on August 12, and on elm and willow at Kelleyton on July 31.

F. E. Guyton (July 20): Found at Auburn.

A NYMPHALID (Polygonia interrogationis F.)

Connecticut. J. V. Schaffner Jr. (August 21): Larvae unusually common, particularly on the terminal leaves of elm sprout growth and small trees along roadsides in the rural districts of New Haven County.

MOURNING-CLOAK BUTTERFLY (Hamadryas antiopa L.)

Missouri. A. C. Burrill (August 1): Nearly full-grown caterpillars were eating leaves on elm sprouts and seedlings on June 7 near St. Louis and on June 23 at Jefferson City.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Maine. H. B. Peirson (August 19): Heavy on cork elm in Hancock and on American elm in Augusta in June and July.

Nebraska. H. D. Tate (August 16): Found to be heavily infesting samples of branches from an elm received from Kimball County on August 13.

HICKORY

HICKORY PHYLLOXERA (Phylloxera caryaecaulis Fitch)

Connecticut. E. P. Felt (August 26): Abundant on hickory at Westport.

LARCH

LARCH SAWFLY (Lygaeonematus erichsonii Htg.)

Maine. H. B. Peirson (August 19): Outbreaks very heavy and causing severe defoliation on August 3 along far eastern coastal towns from Jonesport to Lubec.

Vermont. H. L. Bailey (August): Group of large larch trees near Brattleboro, Windham County, southeastern Vermont, found stripped. Feeding had been completed by July 31. Many cocoons found in litter.

Connecticut. J. V. Schaffner, Jr. (August 24): Reported that a $\frac{1}{4}$ - to $\frac{1}{2}$ -acre plantation of larch in Simsbury was about 75 percent defoliated. Trees affected were about 30 feet in height. No free larvae were found on July 29 but cocoons were exceptionally abundant in the litter. All cocoons cut into contained larvae, rather than pupae or adults.

New Jersey. C. L. Griswold (August 9): Earlier in the season larch trees in a scattered plantation in Mendham Township had been severely attacked. A large cocoon population noted on August 2 under the duff beneath the trees.

LARCH CASEBEARER (Coleophora laricella Hbn.)

New York. J. V. Schaffner, Jr. (August 12): Severe defoliation on a few very large trees observed in Pawling.

LINDEN

AN APHID (Myzocallis tiliae L.)

New York. M. D. Leonard (August 24): Several linden trees under observation at Flushing do not show any infestation.

LINDEN WART GALL (Cecidomyia verrucicola O. S.)

Minnesota. M. W. Wing (August 15): Present on basswood at Winona.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Pennsylvania. T. L. Guyton (August 22): Causing browning of the leaves of black locust in eastern and central parts of the State.

Maryland. E. N. Cory (July 20): Attacking locust trees at Prince Frederick, Calvert County.

Virginia. F. W. Poos (August 20): Breeding in various lots of soybeans at Arlington Experiment Farm several times more abundantly than during 1939. The reason for this increase is not apparent. No black locust trees are located within several hundred yards of these soybeans.

North Carolina. D. L. Wray (August 1): Observed affecting locust trees in forests as much as last year in Mountain counties of Henderson, Buncombe, Madison, Mitchell, and Yancey.

Tennessee, North Carolina, and South Carolina. G. M. Bentley (August 23): Very bad on locust trees on August 14 in eastern Tennessee. Recently found equally as serious in North and South Carolina.

SILVER-SPOTTED SKIPPER (Proteides clarus Cram.)

Connecticut. G. H. Plumb (August 19): Some of the smaller locust trees attacked by Epargyreus tityrus F. at Rainbow have been almost completely defoliated.

LOCUST BORER (Cyllene robiniae Forst.)

Minnesota. M. W. Wing (August 15): On locust tree at Sandstone.

A CERAMBYCID (Tylonotus bimaculatus Hald.)

Minnesota. M. W. Wing (August 15): Present on black locust at Ivanhoe.

MAPLE

GREEN-STRIPED MAPLE WORM (Anisota rubicunda F.)

Maine. H. B. Peirson (August 19): Generally heavy in eastern and southern Maine, especially in Washington and Hancock Counties, where severe defoliation of maple has occurred.

Virginia. A. M. Woodside (August 14): Few trees partly defoliated near Fishersville, Augusta County, and at several points along the highways.

MAPLE LEAF CUTTER (Paraclemensia acerifoliella Fitch)

Vermont. H. L. Bailey (August): Abundant on sugar maple foliage in western Vermont. Foliage of many trees browned by attacks.

AN APHID (Drepanaphis acerifoliae Thos.)

New York. M. D. Leonard (August 15): Very light infestation found on leaves of several maple trees examined at Flushing. The same trees were infested in 1939.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Idaho. J. C. Evenden (August 20): Normally abundant on maple throughout Coeur d'Alene. No great or permanent damage has resulted.

MAPLE BLADDER GALL (Phyllocoptes quadripes Shim.)

Minnesota. M. W. Wing (August 15): Present on silver maple leaves at Coleraine, on maple leaves at Hibbing, and on cutleaf silver maple leaves at Two Harbors.

MOUNTAIN ASH

A SAWFLY (Pristiphora geniculata Htg.)

Maine. H. B. Peirson (August 19): Generally common throughout State during August. Severe to complete defoliation of mountain ash is common in the Kennebec and Dead River watersheds, particularly between Caratunk and Jackman. Larvae were beginning to spin cocoons on August 3.

OAK

TWIG PRUNER (Hypermallus villosus F.)

Maine. H. B. Peirson (August 19): Injury to oak is very common, as it was 2 years ago. Apparently light infestations last year from observations and reports made.

Massachusetts. E. P. Felt (August 26): Work in moderate amounts was reported from the vicinity of Boston.

New York. E. P. Felt (August 26): Work in moderate amounts reported from the vicinity of Monroe.

Minnesota. M. W. Wing (August 15): Present on white oak at Wabasha.

A BORER (Agrilus arcuatus Say)

Minnesota. M. W. Wing (August 15): Present on red oak at Faribault.

A LACEBUG (Corythucha arcuata Say)

New Jersey. M. D. Leonard (August 22): Large white oak at Ridgewood, with the foliage a general gray in appearance, observed to have almost every leaf heavily infested. (Det. by H. G. Barber.)

GOLDEN OAK SCALE (Asterolecanium variolosum Ratz.)

New York. E. P. Felt (August 26): Found in some numbers on golden oak at Bedford Hills.

PINE

A SAWFLY (Gilpinia frutetorum F.)

Connecticut. J. V. Schaffner, Jr. (August 1): Infestation in a red pine plantation at Litchfield, which has been under observation since September 1938, increased considerably in 1940. Larvae are solitary in habits and difficult to find unless rather abundant, because their color blends with that of the foliage. On August 1, 500 full-grown larvae were collected in this infestation in less than an hour, by beating the branches.

RED-HEADED PINE SAWFLY (Neodiprion lecontei Fitch)

Virginia. L. A. Hetrick (August 24): First generation sent in from Richmond County on July 26 and reported as feeding on a young loblolly pine. Larvae noted at several points in the tidewater area within the last month. Not abundant enough at present to cause losses of young pines.

A SAWFLY (Neodiprion pinetum Nort.)

Vermont. H. L. Bailey (August): Specimens received from Corinth and East Randolph, Orange County, eastern Vermont, with reports of defoliation.

Correction:--The note on page 350 of Insect Pest Survey Bulletin dated August 1, 1940, on the pine sawfly, Acantholyda erythrocephala L., should read "Pennsylvania. C. L. Griswold (July 19): Larvae found feeding * * *"

WHITE PINE WEEVIL (Pissodes strobi Peck)

New England. E. P. Felt (August 26): Moderately abundant in small white pines in southern New England and southeastern New York.

Minnesota. M. W. Wing (August 15): Present on white pine at Nisswa, Stoney Point, Bock, and Saint Paul.

PALES WEEVIL (Hylobius pales Hbst.)

New Hampshire and Massachusetts. J. V. Schaffner, Jr. (August 24): Reported that a recent study of the injury this season to natural white pine seedlings in hurricane-felled stands in Massachusetts and New Hampshire indicates that comparatively little damage was caused this season. In a stand at Coldbrook, Mass., however, about 50 percent of the seedlings died this season as a result of injury.

A SCOLYTID (Pityophthorus ramiperda Swaine)

Maine. H. B. Peirson (August 19): Pine twig beetle somewhat abundant in central Maine, tunnelling in tips of white pine twigs and causing them to die and brown.

SPRUCE BUDWORM (Cacœcia funiferana Clem.)

Minnesota. M. W. Wing (August 15): Moderately abundant on jack pine in Beltrami County.

A MOTH (Dioryctria zimmermani Grote)

Maine. H. B. Peirson (August 19): Zimmerman's pine moth common on young white pine trees in central Maine, especially about wounds at the base of branches on the main trunk. Injury caused to small plantation trees near the base of apparently unwounded trees during recent years. Larvae were nearly full grown the last of July.

PINE TUBE MOTH (Argyrotaenia pinitubana Kearf.)

Wyoming. J. C. Evenden (July 10): Always present within lodgepole pine stands in West Yellowstone. Severe outbreak this year, which can be considered as being in epidemic proportions, a few miles to the southeast of Madison Junction. All trees are infested.

A PINE APHID (Cinara taedae Tissot)

Virginia. L. A. Hetrick (August 24): Noted feeding in great numbers on July 12 on old needles of loblolly pines in Middlesex County. Feeding causes a premature yellowing and shedding of needles. Infestation has since been noted at other points in the tidewater area. Population has rapidly decreased since August 1. (Det. by P. W. Mason.)

SPRUCE CALL APHID (Pineus pinifoliae Fitch)

New York. T. Parr (August 6): Aphids collected at St. Huberts on white pine needles on July 30. (Det. by P. W. Mason.)

North Carolina. D. L. Wray (July 31): Usual damage observed on spruce trees at Hot Springs, Madison County; Poplar, Mitchell County; and Highlands, Mason County.

A THRIPS (Gnophothrips piniphilus Crawford.)

Rhode Island. C. C. Jennings (August 20): Found on Austrian pine in Kent County. (Det. by J. C. Crawford.)

POPLAR

A CERAMBYCID (Plectrodera scalator F.)

Missouri. J. Castelli (August 2): Beetle found in Pacific submitted on July 31. (Det. by W. S. Fisher.)

APHIDS (Thecabius spp.)

Utah. G. F. Knowlton (August 1): T. populi-monilis Riley have seriously injured many leaves of the narrow-leaf cottonwood trees at Warship. (August 10): T. populi-conduplicifolius Cowen has folded large numbers of leaves of several poplars at Trenton.

POPLAR BORER (Saperda calcarata Say)

Minnesota. M. W. Wing (August 15): Present on poplar in the northern part of the State.

SPRUCE

EUROPEAN SPRUCE SAWFLY (Gilpinia polytomum Htg.)

Maine. H. B. Peirson (August 19): Outbreak remains generally severe, with new areas of heavy spruce infestation being reported in Rangley and Dead River regions. New cocoons were being spun on the central coast on July 20 and in the Jackman region on August 3.

SPRUCE SAWFLY (Neodiprion abietis Harr.)

Maine. H. B. Peirson (August 19): Larvae, two-thirds grown, common on spruce on Squirrel Island off Boothbay on July 13.

YELLOW-HEADED SPRUCE SAWFLY (Pikonema alaskensis Rohw.)

Maine. H. B. Peirson (August 19): Still abundant on young open-growth spruce generally throughout the State. Some severe outbreaks in central Maine have dropped, owing to attack by native parasites. Life cycle was about 10 days to 2 weeks late this year, larvae being present in Bangor as late as August 17.

EASTERN SPRUCE GALL APHID (Adelges abietis L.)

Michigan. R. Hutson (August 23): Adults present on Norway and blue spruce at Lansing, Grand Rapids, Holland, and Detroit about the middle of August.

Minnesota. M. W. Wing (August 15): Present on spruce at Duluth.

SITKA SPRUCE GALL APHID (Adelges cooleyi Gill.)

Maine. H. B. Peirson (August 19): Migrants abundant on Douglas fir; egg masses observed in Portland.

Michigan. R. Hutson (August 23): Present at Bloomfield Hills. Seldom found on Michigan plantings.

SPRUCE NEEDLE MINER (Taniva albolineana Kearf.)

Maine. H. B. Peirson (August 19): Severely injured a few spruce trees in Richmond on May 23. Unusually heavy webbing is taking place.

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Connecticut. G. H. Plumb (August 20): One large walnut tree at Hamden completely defoliated.

Michigan. R. Hutson (August 23): Reported from Mason, Ionia, and Grand Rapids. Adults made appearance in cages early in June. Untreated trees practically defoliated, as the season has been favorable to the pest.

Minnesota. M. W. Wing (August 15): Present on butternut at Saint Paul.

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

Tennessee. G. M. Bentley (August 23): Causing injury to foliage of black walnut in Franklin County on July 27.

WILLOW

IMPORTED WILLOW LEAF BEETLE (Plagioder a versicolora Laich.)

Massachusetts. J. V. Schaffner, Jr. (August 17): Heavy infestation observed on willow in Greenfield.

Connecticut. M. P. Zappe (August 23): Many willows defoliated in Fairfield and Litchfield Counties.

J. V. Schaffner, Jr. (August 17): Heavy infestations on willow observed in Cheshire and Hamden.

New York. R. E. Horsey (August): Grubs and adults common to abundant on several species of willow leaves on July 31 at Rochester. Reported as common on willows near Canadaigua on August 2.

J. V. Schaffner, Jr. (August 17): Heavy infestations observed on willow.

ROSE LEAF BEETLE (Nodonota puncticollis Say)

Virginia. A. M. Woodside (August 14): A small willow near Fisherville was partly devoliated during the early part of the month.

AN APHID (Chaitophorus viminalis Monell)

New Jersey. M. D. Leonard (August 27): Heavy infestation on a large willow tree at Ridgewood continues about the same as a month ago.

PINE CONE GALL (Rhabdophaga strobiloides Walsh)

Minnesota. M. W. Wing (August 15): Found on willow at Ortonville.

INSECTS AFFECTING GREENHOUSE
AND ORNAMENTAL PLANTS

CHINCH BUG (Blissus hirtus Montd.)

Maine. H. B. Peirson (August 19): Severely browning lawn in Augusta. Adults just appearing.

Connecticut. J. P. Johnson (August 23): Lawns severely damaged in many sections of Hartford, West Hartford, Hamden, New Haven, West Haven, and Westport. First brood delayed 3 weeks or more, owing to weather conditions.

STALK BORER (Papaipema nebris nitela Guen.)

Minnesota. M. W. Wing (August 15): Observed on dahlia at St. Paul.

Nebraska. H. Douglas Tate (July 18): Specimens submitted from Box Butte County with report that they were killing sunflowers.

FLOWER WEBWORM (Homocidoma electellum Hulst.)

Minnesota. M. Wing (August 15): Attacking zinnias and dahlias and working in heads of flowers at West Concord, Pennock, Renville, Rochester, Benson, Cokato, and in Carver County.

A BEETLE (Lema sexpunctata albina Lac.)

Alabama. F. E. Guyton (August 3): Heavily damaging wandering jew at Auburn.

SUNFLOWER WEEVIL (Rhodobaenus tredecimpunctatus Ill.)

Georgia. Mrs. A. B. Brown (July 8): Collected on dahlia at Quitman on July 8. Found boring in stem and upper portion of root. (Det. by W. H. Anderson)

AN APHID (Capitophorus gillettei Theob.)

New York. M. D. Leonard (August 24): Two to three dozen large smartweed plants grown in pots built up a heavy infestation within a couple of weeks at the New York World's Fair Grounds.

OYSTERSHELL SCALE (Lepidosaphes ulmi L.)

Maine. H. B. Peirson (August 19): Generally abundant on lilac. Eggs hatched on June 26 at Augusta, hatching later than normally.

Pennsylvania. J. P. Slesman (August 21): Very heavy infestations found on boxwood in the Philadelphia area. Also found on lilac and elm.

Washington. E. J. Newcomer (August 14): Very common on apple and pear trees in Kittitas County.

California. F. C. Bishopp (August 12): Collected at Lakeport on August 3.
Killing willow along lake.

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

Utah. G. F. Knowlton (May 18): Heavily infesting rose bushes in gardens at Richfield.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

New York. M. D. Leonard (August 9): Few bay trees growing outdoors in large wooden tubs at the New York World's Fair Grounds were infested, one being considerably infested and the other two or three only lightly. Plants reported as coming from a nursery near Philadelphia.

Mississippi. C. Lyle and assistants (August 26): Reported as very numerous on one property in Harrison County and several requests for control reported from the southeastern counties.

A MITE (Eriophyes eucricotes Nal.)

New York. E. P. Felt (August 26): Lycium leaves infested with galls were received from the New York Botanical Garden.

AZALEA

AZALEA SCALE (Eriococcus azaleae Comst.)

Mississippi. C. Lyle and assistants (August 26): Found on azalea on three properties in Harrison County. Light infestations noted in Meridian area.

BAMBOO

A SCALE (Odonaspis penicillata Green)

Mississippi. C. Lyle (August 26): Specimens on bamboo received from Harrison County.

BOXWOOD

BOXWOOD LEAF MINER (Monarthropalpus buxi Laboulb.)

New England. E. P. Felt (August 26): Damage reported from a number of localities in southern New England, southeastern New York, and northern New Jersey.

Pennsylvania. T. L. Guyton (August 19): Numerous in one planting of boxwood at Harrisburg.

North Carolina. D. L. Wray (August 1): Seriously attacking boxwood in Winston-Salem, in Forsyth County, and in Asheville, in Buncombe County.

CAMPHOR

CAMPHOR THRIPS (Liothrips floridensis Watson)

Mississippi. G. L. Bond (August 26): Reported as almost destroying some camphor trees growing in a hedge in Jackson County.

CANNA

LESSER CANNA LEAF ROLLER (Geshna cannalis Quaint.)

Mississippi. C. Lyle (August 26): Specimen sent in from Copiah County, the first specimen seen for several years.

COLUMBINE

COLUMBINE BORER (Papaipema purpurifascia G. & R.)

Minnesota. M. W. Wing (August 15): Found in aquilegia roots at Northfield.

CHRYSANTHEMUM

CHRYSANTHEMUM APHID (Macrosiphoniella sanborni Gill.)

Illinois. C. C. Compton (August 24): Caused an unusual amount of damage to greenhouse grown chrysanthemums throughout State. Particularly troublesome where 'mums are grown under shading cloths.

CHRYSANTHEMUM LACEBUG (Corythucha marmorata Uhl.)

Ohio. T. H. Parks (August 24): Severely damaging chrysanthemum in Trumbull.

CRAPEMYRTLE

CRAPEMYRTLE APHID (Myzocallis kahawaluokalani Kirk.)

Mississippi. L. J. Goodgame (August 26): Abundant on trees in Monroe County.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Mississippi. C. Lyle and assistants (August 26): Specimens received from Montgomery County. Severe injury reported from Hinds County and from the north-eastern part of the State where several plants were killed.

Texas. R. K. Fletcher (August 13): Causing severe injury in Dallas County on August 4 and in Brazos County on August 10.

HAWTHORN

A LACEBUG (Corythucha cydoniae Fitch)

Michigan. R. Hutson (August 23): Taken on hawthorn at Howell.

Mississippi. G. L. Bond (August 26): *Pyracantha* injured in several places in the southeastern part of State.

IRIS

IRIS BORER (Macronoctua onusta Grote)

Minnesota. M. W. Wing (August 15): Found on iris at St. Paul.

JUNIPER

JUNIPER SCALE (Diaspis carueli Targ.)

Massachusetts. E. P. Felt (August 26): Found in moderate abundance at Pittsfield.

North Carolina. D. L. Wray (July 31): Irish and English junipers damaged in western part of State. Observed doing serious damage at Winston-Salem, Statesville, Mocksville, Shelby, Hendersonville, Asheville, and Canton.

LILAC

LILAC LEAF MINER (Gracilaria syringella F.)

Maine. H. B. Peirson (August 19): Very abundant on lilac in the Jackman region, a full grown larva being found on July 23.

ORCHIDS

A WEEVIL (Diorymerellus laevimargo Champ.)

Indiana. J. J. Davis (July 8): Collected on orchids in private home at Indianapolis on July 12. (Det. by L. L. Buchanan.)

PHLOX

A SCALE INSECT (Asterolecanium sp.)

Massachusetts. A. I. Bourne (August 24): Found in shallow depressions of rather prominent swellings of phlox stems. First report on this type of injury and first record of its occurrence in State.

RHODODENDRON

RHODODENDRON LACEBUG (Stephanitis rhododendri Horv.)

New Jersey. M. D. Leonard (August 22): Infestation observed on many large plants during season. Less injurious than last year.

ROSE

A LEAF ROLLER (Cacoecia sp.)

Illinois. C. C. Compton (August 24): Rose leaf roller causing severe damage to greenhouse-grown roses in northern Illinois. Lack of parasites has resulted in an unusually heavy infestation in commercial rose ranges.

ROSE MIDGE (Dasyneura rhodophaga Coq.)

Colorado. L. E. Taylor (July 23): Collected in maggot stage from rosebuds on July 8, and reared to adults. Emerged July 15.

SPIREA

A EUCOSMID (Evora hemidesma Zell.)

Nebraska. H. D. Tate (August 16): Caterpillars found feeding on leaves of spirea in Washington County on August 8.

YEW

A MEALYBUG (Pseudococcus cuspidatae Rau)

Michigan. R. Hutson (August 23): Large infestation on ornamental stand in a Detroit park.

I N S E C T S A T T A C K I N G M A N A N D

D O M E S T I C A N I M A L S

MAN

MOSQUITOES (Culicinae)

New York. L. O. Howard (August 1): Aedes canadensis Theob. and A. excrucians Walk. attacking man were collected at Tannersville on July 27. (Det. by A. Stone.)

Maryland. F. C. Bishopp (August 23): Anopheles punctipennis Say has been rather annoying around residences in Silver Spring during the last week.

Virginia. L. A. Hetrick (August 24): Five adults of Anopheles crucians Wied. collected on August 13 at West Point.

Florida. J. B. Hull (July 31): Some salt-marsh mosquitoes (Aedes taeniorhynchus Wied.) were found on island opposite Ft. Pierce in July, but are scarce in comparison with July of last year.

Mississippi. C. Lyle (August 26): Mosquitoes were very abundant in the north-western counties and extremely abundant in Pearl River County.

Texas. W. G. Bruce (August 26): Not so prevalent around Dallas as during May, June, and July but troublesome in the vicinity of Trinity River.

Washington and Oregon. C. M. Gjullin (July 31): Comparatively small numbers of Aedes vexans Meig. and A. lateralis Meig. have been taken in light traps operated along the Columbia River this year. This is due to the below-normal crest of the river.

CAT FLEA (Ctenocephalides felis Bouche)

New York. H. H. Stage (August 13): Reported as very annoying in a residence in Buffalo. (Det. by Helen L. Trembley.)

Michigan. H. H. Stage (August 11): Reported as annoying both in and outside house in Detroit. (Det. by Helen L. Trembley.)

HUMAN FLEA (Pulex irritans L.)

Illinois. H. H. Stage (July 31): Reported as abundant in Moline and vicinity. (Det. by Helen L. Trembley.)

A THIRIPS (Frankliniella tabaci Fitch)

New York. E. A. Back (August 9): Reported as biting workers in a building in New York City. (Det. by J. C. Crawford.)

CHIGGER (Eutrombicula alfreddugesi Oud.)

Pennsylvania. H. H. Stage (August 12): Reported as not so numerous at Altoona as last year.

Ohio. H. H. Stage (July 25): Yard reported to be full of chiggers.

Illinois. H. H. Stage (July 23): Reported as being very prevalent in lawns in part of Park Ridge and as causing a great deal of trouble.

Michigan. R. Hutson (August 23): Infestations reported from Millford and Erie. First control requests received in several years.

BROWN DOG TICK (Rhipicephalus sanguineus Latr.)

Tennessee. F. C. Bishopp (August 3): What is believed the first record of the appearance in this State appeared in a small lot of ticks from a correspondent at Knoxville. They were associated with Dermacentor variabilis Say and reported as unusually prevalent. (Det. by Helen L. Trembley.)

Missouri. H. H. Stage (August 6): Great numbers found in room of house near Saint Louis. (Det. by Helen L. Trembley.)

Nebraska. H. H. Stage (July 17): Several larvae received from Omaha. (Det. by Helen L. Trembley.)

California. H. H. Stage (July 23): Specimen sent from Los Angeles County. (Det. by Helen L. Trembley.)

AMERICAN DOG TICK (Dermacentor variabilis Say)

Massachusetts. F. C. Bishopp (August 13): Reported as attacking humans on August 11 and August 12 at South Truro, on Cape Cod.

Tennessee. F. C. Bishopp (August 3): Unusually prevalent at Knoxville. (Det. by Helen L. Trembley.)

Nebraska. H. D. Tate (August 16): Sample of ticks taken from dog in Douglas County on July 16.

BLACK WIDOW SPIDER (Latrodectus mactans F.)

Texas. R. K. Fletcher (August 13): Reported as abundant in houses in Bexar, Harris, and Brazos Counties during the month.

California. D. F. Barnes (July): About 200 spiders were killed, while men were sorting 10 tons of first-crop figs at Fresno.

CATTLE

SCREWORM (Cochliomyia americana C. & P.)

Texas. D. C. Parman (August 1): General infestation for mid-July was about four times that of 1939. Survey and status-trap catches for Kerrville and Pipe Creek were 781 and 1,219 for 1939 and 63 and 8, respectively, for 1940.

E. C. Cushing (August 6): Surveys show that local showers along southern escarpment of the Edwards Plateau, especially at the eastern end, have allowed this pest to survive the hot weather of late July and early August in large numbers. On August 1 the population in this area was about seven times that for the same date last year.

HORN FLY (Haematobia irritans L.)

Missouri. L. Haseman (August 20): Throughout central Missouri horn flies have been less abundant than usual during August.

Texas and Oklahoma. W. G. Bruce (August 26): Not abundant during the month in the vicinities of Dallas and Cresson, Tex., and Waurika, Okla. Infestations on dairy cattle in the Dallas area approximate from 200 to 300 per head. Infestations on beef cattle at Cresson average about 1,000 per head and infestations at Waurika were estimated at 800 per head.

E. C. Cushing (August 26): On 16 cattle examined at the ranch experiment station at Menard 942 horn flies were estimated, or an average of approximately 59 per animal. Horn flies have developed quite rapidly since heavy rains during the third week in August.

STABLEFLY (Stomoxys calcitrans L.)

Missouri. L. Haseman (August 20): In central Missouri stable flies have been less abundant than usual throughout August and are reported to be abundant in localized parts of the State.

Texas and Oklahoma. W. G. Bruce (August 26): Greatly reduced in numbers since July at Dallas and Cresson, Tex., and somewhat reduced at Waurika, Okla.

LONE STAR TICK (Amblyomma americanum L.)

Arkansas. H. H. Stage (July 26): Several larvae taken from a dog at Pine Bluff. (Det. by F. C. Bishopp.)

EAR TICK (Ornithodoros megnini Duges)

Texas. H. E. Parish (August 26): Of 272 animals examined on 5 ranches in Menard and Kimble Counties on August 13, 106 were found to be infested. Of these animals 234 were sheep, of which 90 were found to be infested, and 38 were cattle of which 16 were infested. The infestation ranged from light to heavy.

DEER FLIES (Chrysops spp.)

Delaware. L. A. Stearns (July 22): Several species abundant on man and animals and biting severely in area along Delaware Bay shore, in New Castle County.

HORSE

HORSEFLIES (Tabanus spp.)

Minnesota. M. W. Wing (August 15): T. atratus F. was present on cows at Ortonville and at Farmington. T. stygius Say present in Minneapolis.

Missouri. L. Haseman (August 20): T. sulcifrons Macq. continued to be unusually abundant and annoying to livestock throughout the State during August, this species being the most in evidence.

A. C. Burrill (July 28): Second time T. atratus has been noted annoying cattle in pasture near Jefferson City.

CHINCHILLA

A PSOCID (Liposcelis sp.)

Utah. G. F. Knowlton (August 7): Present in nests of chinchilla breeding stock at Smithfield. These lice seem to be responsible for serious scratching and biting of the fur in a number of these valuable animals. (Det. by A. B. Gurney.)

HOUSEHOLD AND STORED-PRODUCTS INSECTS

TERMITES (Isoptera)

Virginia. L. A. Hetrick (August 24): Reproductive individuals of Reticulitermes hageni Banks swarmed from a house in West Point on August 15.

R. A. St. George (August 26): R. hageni was attacking woodwork of building and emerging from house at Cherrydale. Many winged adults swarming today.

Florida. E. A. Back (July 22): A drywood termite Kalotermes snyderi Light found infesting furniture in Sarasota.

Nebraska. H. D. Tate (August 16): R. tibialis Banks reported as damaging buildings in Jefferson and Dodge Counties on July 17 and 25, respectively, flowers in Franklin County on August 7, and trees and shrubs in Gosper County on August 10.

Oklahoma. C. F. Stiles (August 23): Termites reported as damaging a house at Idabel.

ANTS (Formicidae)

Maine. R. A. St. George (August 21): Specimens of Formica fusca L. var. collected on August 17 in flower garden of house in Bath. (Det. by M. R. Smith.)

H. B. Peirson (August 19): Camponotus herculeanus pennsylvanicus Deg. injury to summer buildings reported as common during July and August. Winged males and females present on July 26 at Harpswell.

Pennsylvania. Mrs. J. Morrissey (August 20): C. herculeanus pennsylvanicus infesting house in Wilkes Barre. (Det. by M. R. Smith.)

Maryland. E. N. Cory (August 24): Monomorium pharaonis L. and other species on lawns, gardens, and in houses generally.

Mississippi. C. Lyle (August 26): Specimens received of Iridomyrmex humilis Mayr, which were numerous where no treatment was used last year in Harrison and Hancock Counties; also reported in Monroe, and Prentiss Counties, in the Durant area and the Jackson area. Specimens also received from Copiah County.

Specimens of the fire ant (Solenopsis xyloni McCook) received from Bolivar County late in July, and complaints reported from Durant area. Very annoying both in houses and on lawns on the Gulf coast. M. pharaonis received from Jackson County and a complaint from Hancock County. Reported as abundant in Harrison County and causing a number of complaints in Pearl River County. M. minimum Buckl. received from Clay County, where they were causing annoyance in a house. Specimens of C. caryae rasilis Wheeler found in Oktobbeha County. Specimens of Crematogaster ashmeadi Mayr collected in a house in Washington County.

Louisiana. Mrs. F. D. Folweiler (August 19): M. pharaonis was annoying in a house at University. (Det. by M. R. Smith.)

Missouri. A. C. Burrill (August 1): Both Tapinoma sessile Say and M. pharaonis reported as getting into kitchen and pantry in house in Cole County on June 13 to 20, and on June 28 to July 4 and later.

Minnesota. M. W. Wing (August 15): C. herculeanus pennsylvanicus present on oak in Minneapolis.

GERMAN COCKROACH (Blattella germanica L.)

Mississippi. C. Lyle (August 26): Reports of annoyance received from Neshoba and Warren Counties. Abundant in Tate and Hinds Counties, and along the Gulf coast. Many complaints reported in the Durant area.

Nebraska. H. D. Tate (August 16): Reported as infesting the basement of a house in Colfax County on July 19.

Missouri. A. C. Burrill (July 24): Reported as bad in house in Jefferson City.

Washington. L. G. Smith (August 7): Specimens sent in from Everett, Snohomish County, on July 30.

ORIENTAL COCKROACH (Blatta orientalis L.)

Minnesota. M. W. Wing (August 15): Found in old house at Stillwater.

BROWN-BANDED COCKROACH (Supella supellectilium Serv.)

Oklahoma. F. A. Fenton (August 22): Reported from North McAlester, Pittsburg County.

HOUSE CRICKET (Gryllus domesticus L.)

New Jersey. E. A. Back (September 3): On July 22 reported as troublesome in houses within $\frac{1}{4}$ mile of the city dump in Rockaway. Infestation increased greatly, but by August 16 the situation had improved as result of action taken by local health department.

Virginia. E. A. Back (July 24): Entire section of Cherrydale near a dump reported as overrun. (August 23): Reported as troublesome in houses in Alexandria,

coming from city dump.

CLOTHES MOTHS (*Tineidae*)

- Connecticut. E. A. Back (August 9): Tremendous numbers of adults of *Tineola biselliella* Hum. collected in rooms of insulated house in Middletown.
- New York. E. A. Back (August 23): Insulation badly infested with *T. biselliella*; found in walls and between floors, from which adults were emerging in numbers in house in New York City.
- Maryland. E. A. Back (July 23): Installing of insulation led to development of infestation of *T. biselliella* in house in Baltimore which had been free from moths.
- Minnesota. M. W. Wing (August 15): *T. biselliella* present at Blue Earth.
- Alabama. J. M. Robinson (August 17): *Tinea pellionella* L. found in dwelling at Fairhope on August 6 and at Headland on July 20.
- Nebraska. H. D. Tate (August 16): Requests for control of *T. biselliella* received from Pierce, Box Butte, and Holt Counties during the period from July 16 to August 15, inclusive.
- Texas. R. K. Fletcher (August 13): *T. pellionella* was infesting rugs in Brooks County on August 7.

TOBACCO MOTH (*Ephestia elutella* Hbn.)

- Virginia. H. N. Pollard and C. O. Bare (August 23): Emergence of second-generation adults has been increasing rapidly during the last 10 days in stored tobacco at Richmond. *Microbracon hebetor* Say was rapidly increasing in numbers.

ALMOND MOTH (*Ephestia cautella* Walk.)

- Florida. E. A. Back (August 6): Reared from seeds of novelty necklace received in June from store in Miami. Larvae had eaten out the seed kernels and cut the thread upon which seed had been strung. (Det. by C. Heinrich.)

A BEETLE (*Coninomus constrictus* Gyll.)

- New York. E. A. Back (July 23): Adults received from newly constructed apartment house in New York City. (July 25): Reported to be penetrating screens in the Bronx. (July 27): Found mostly in closet spaces of building nearing completion in New York City. (Det. by W. S. Fisher.)

A DERMESTID (*Dermestes cadaverinus* F.)

- New York. E. A. Back (August 10): Larvae and adults infesting a kitchen in the Bronx, New York City. (Det. by H. S. Barber.)

CIGARETTE BEETLE (Lasioderma serricorne F.)

Virginia. H. N. Pollard and C. O. Bare (August 23): Approximately 4 percent as numerous in stored tobacco about Richmond as during August 1939.

A SPIDER BEETLE (Gibbium psylloides Czemp.)

Virginia. E. A. Back (July 6): Adults found in dishes in cupboard in Richmond.

WHITE-MARKED SPIDER BEETLE (Ptinus fur L.)

Minnesota. E. A. Back (August 15): Bran for cattle feed received from Saint Paul badly infested. (Det. by W. S. Fisher.)

DRUG STORE WEEVIL (Stegobium paniceum L.)

Maine. H. B. Peirson (August 19): Very numerous on June 18 about kitchen and pantry of house at Augusta.

WOOD BORERS (Coleoptera)

General. E. A. Back (August 16): Hadrobregmus carinatus Say found heavily infesting cellar stairs, stair rails, and other wooden objects in house in Chelsea, Mass. Parasites present (det. by C. F. W. Muesebeck as Heterospilus sp.). Adults and parasites abundant and annoying in kitchen of house mentioned above, where they have been found crawling on windowsills since August 5. On August 25 an active infestation of H. carinatus was found in frame of antique maple table in Chaplin, Conn. On July 27 H. carinatus was found in newly furnished house in Westchester County (det. by W. S. Fisher).

Maine. H. B. Peirson (August 19): Phymatodes testaceus variabilis L. adults were emerging abundantly from beech and yellow birch firewood in cellar of building at Orono on August 1.

Connecticut. E. P. Felt (August 26): Leperisinus aculeatus Say emerged in large numbers from firewood and appeared in nearby houses at Southport.

New York. W. Glasel (August 16): L. aculeatus was collected in great numbers on July 30 in house at Scarsdale. (Det. by M. W. Blackman.)

Virginia. L. A. Hetrick (August 15): Numerous requests for control of Xyletinus peltatus Harr. received from tidewater area. Feeding of larvae noted because of boring dust being forced from their burrows.

WHARF BORER (Nacerda melanura L.)

Michigan. R. Hutson (August 23): Specimen received from Royal Oak. Causing considerable damage in some places.

